

2011

Annual Report Proxy Statement Notice of Annual Meeting

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Division

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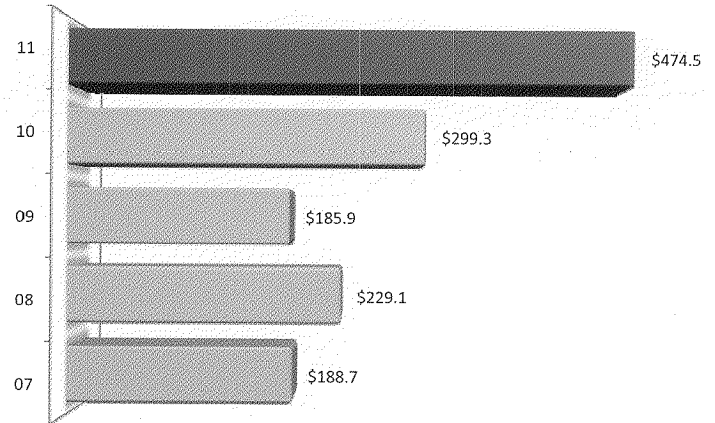
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World Leadership in High Power Fiber Lasers

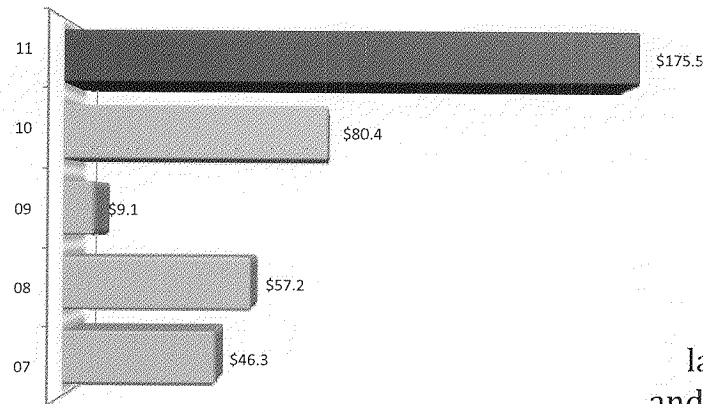
Financial Highlights



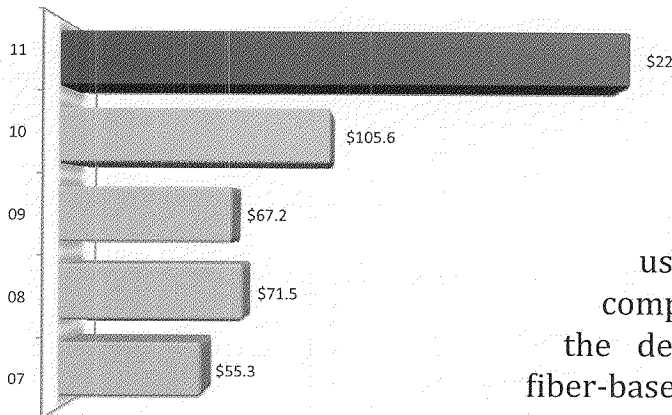
**Five-Year Compound Annual
Revenue Growth of 27%**
(in millions)



Operating Income
(in millions)



High Power Laser Sales
(in millions)



IPG is the leading developer and manufacturer of a broad line of high-performance fiber lasers, fiber amplifiers and diode lasers that are used in numerous applications in diverse end markets. Fiber lasers are a type of laser that combines the advantages of semiconductor diodes, such as long life and high efficiency, with the high amplification and precise beam qualities of specialty optical fibers to deliver superior performance, reliability and usability at a generally lower cost compared to competing lasers. Founded in 1990, IPG pioneered the development and commercialization of optical fiber-based lasers for use in a wide range of applications.

Letter to Stockholders

To My Fellow Stockholders:

We accelerated the momentum that began in 2010 and reported exceptional financial results in 2011. We also drove greater awareness of the IPG brand as an increasing number of companies worldwide recognized the significant value that our products provide by enhancing productivity and reducing operating costs. In addition, existing OEM customers were ordering products in greater quantities as we came off the bottom of the global economic downturn.

Revenues for the year grew by 59% from 2010 to \$474.5 million, driven by high-power laser sales for materials processing applications. With the leverage in our business model and increased sales volume, we further improved our gross margin to 54% from 49% in 2010, and reported a 118% increase in net income to \$2.41 per diluted share.

Sales of IPG lasers for materials processing applications grew 66% and accounted for approximately 88% of total sales in 2011. Advanced applications, telecommunications and medical applications accounted for the remaining 12% of sales. We expect sales for those three applications to increase, but we see the greatest growth opportunity from materials processing.

Our high-power laser sales, which were up 110% from 2010, continue to be driven by growing demand for cutting and welding applications. We are beginning to see increased demand for medium-power lasers for fine processing applications in markets such as consumer electronics, and for pulsed lasers in marking and engraving applications. Low-power laser sales, which are primarily used for medical applications, also grew on a year-over-year basis.

After being introduced in 2010, sales of our QCW (quasi-Continuous Wave) medium power lasers were up 272% in 2011 as they attracted interest from customers looking to upgrade from high power flash lamp pump YAG lasers used for fine welding as well as cutting and drilling of thinner materials. With greater than 30% wall-plug efficiencies and maintenance-free operation, these air-cooled, compact units are substantially more cost effective than conventional YAG lasers.

Geographically, Europe continued to perform well, up 67% despite the economic environment. In that region, we sell mainly into Germany and Northern Europe where our OEM customers are primarily exporting products to the rest of the world. North America grew 41% and Asia and Australia were up 58%. We continue to watch the economic environment in Europe and China, but believe both geographies offer promising long-term opportunities for IPG.

2011 was a real turning point in the adoption of fiber lasers for industrial uses, and IPG continues to be the technology and market leader in this space. The market for industrial lasers is approximately \$3.8 billion and growing at approximately 7% to 9% per year. Within that market, fiber lasers are quickly gaining share, having grown at a rate of approximately 60% in 2011. Still, fiber lasers are at the early stage of penetrating certain segments of the laser market and there remain significant opportunities for IPG to expand its presence.

One industry that has adopted the use of fiber lasers to replace traditional laser sources is automotive manufacturing. The need to lower automotive weight and improve fuel economy has resulted in the increased



Letter to Stockholders



use of lightweight, high-strength steel and aluminum, as well as welding together materials of different thicknesses and composition. These trends have resulted in the increased use of lasers, which are better suited to these applications than older welding technologies.

As the adoption of fiber lasers continues to expand within the industrial manufacturing landscape, we're seeing our lasers used in more and diverse applications. For example, fiber lasers are now used primarily on metals, but we are expanding our product line to process various non-metals, including plastics, paper and cardboard. Other new applications for fiber lasers include drilling oil and gas wells, fighting oil and gas well fires and for hardening steel in natural resource exploration. These applications use very high power fiber lasers that only IPG can deliver, and the potential opportunity for these applications is significant.

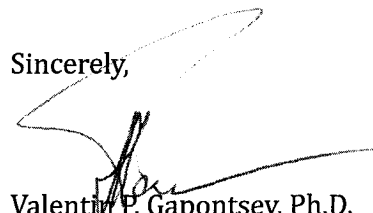
To capitalize on the many emerging opportunities in our markets, we continue to develop innovative new products to meet our customers' needs. We introduced several new products during the year, including a 2-kilowatt air cooled laser specifically designed for welding in dry environments, ultra-compact lasers with output power up to 1-kilowatt, and 20- and 30-watt green lasers.

Looking ahead, one new product area that we are targeting is the development of specialized laser systems, which include the laser source, motion control, software, enclosure and other elements. The total market for laser systems is estimated to be approximately \$8 billion, and we intend to pursue specific areas of this market where we can best leverage our technology to add the greatest value for customers or where fiber laser systems are not offered. For example, we are qualifying in the automotive industry with our laser seam stepper system, which is a welding system that combines our fiber laser with a welding apparatus.

Going forward, we expect that our high-power laser products, particularly for materials processing applications, will continue to drive our growth this year and into the future. We plan to leverage our technology depth and culture of innovation to expand the range of laser powers and wavelengths to address an increasing array of applications. As a result, our lasers will continue to displace existing laser and non-laser technologies. To accomplish this, as we move forward in 2012 we will continue to invest in R&D and application labs to further our technology lead, and build capacity to keep pace with expected demand. We are very excited by the opportunities before us in 2012 and beyond, and we will continue to build on the strong reputation we have established as a leader in the industry. We continue to generate healthy free cash flow and have a strong balance sheet and financial liquidity allowing us greater opportunities for complementary acquisitions.

On behalf of the IPG Photonics team, I would like to thank all of our stockholders for your continued support. We look forward to another successful year together.

Sincerely,



Valentin P. Gapontsev, Ph.D.
Chairman and Chief Executive Officer
April 12, 2012



UNITED STATES SECURITIES AND EXCHANGE COMMISSION**Washington, DC 20549****Form 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934****For the fiscal year ended December 31, 2011****OR****TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934****Commission File Number: 001-33155****IPG PHOTONICS CORPORATION***(Exact name of registrant as specified in its charter)***Delaware***(State or other jurisdiction of
incorporation or organization)***04-3444218***(IRS Employer
Identification No.)***50 Old Webster Road, Oxford, Massachusetts***(Address of principal executive offices)***01540***(Zip Code)***Registrant's telephone number, including area code:****(508) 373-1100****Securities registered pursuant to Section 12(b) of the Act:****Title of Class****Name of Exchange on Which Registered****Common Stock, Par Value \$0.0001 per share****The NASDAQ Stock Market LLC****Securities registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒Accelerated filer ☐Non-accelerated filer ☐Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately \$2.0 billion, calculated based upon the closing price as reported by the Nasdaq Global Market on June 30, 2011. For purposes of this disclosure, shares of common stock held by persons who own 5% or more of the outstanding common stock and shares of common stock held by each officer and director have been excluded in that such persons may be deemed to be "affiliates" as that term is defined under the Rules and Regulations of the Exchange Act. This determination of affiliate status is not necessarily conclusive.

As of February 23, 2012, 47,680,519 shares of the registrant's common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for its 2012 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A within 120 days of the end of the registrant's fiscal year ended December 31, 2011 are incorporated by reference into Part III of this Annual Report on Form 10-K to the extent stated herein.

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This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Annual Report on Form 10-K except for historical information are forward-looking statements. Without limiting the generality of the foregoing, words such as “may,” “will,” “expect,” “believe,” “anticipate,” “intend,” “could,” “estimate,” or “continue” or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.

The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to accurately predict and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1 (Business) and Item 1A (Risk Factors) of Part I and Item 7 (Management’s Discussion and Analysis of Financial Condition and Results of Operations) of Part II of this Annual Report on Form 10-K. Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission (the “SEC”). In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to rely on such forward-looking information. We undertake no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

PART I

ITEM 1. BUSINESS

Our Company

IPG Photonics Corporation (“IPG,” the “Company,” the “Registrant,” “we,” “us” or “our”) is the leading developer and manufacturer of a broad line of high-performance fiber lasers, fiber amplifiers and diode lasers that are used in numerous applications in diverse end markets. Fiber lasers are a type of laser that combines the advantages of semiconductor diodes, such as long life and high efficiency, with the high amplification and precise beam qualities of specialty optical fibers to deliver superior performance, reliability and usability at a generally lower cost compared to competing lasers.

Our diverse lines of low, mid and high-power lasers and amplifiers are used in materials processing, advanced, communications and medical applications. We sell our products globally to original equipment manufacturers, or OEMs, system integrators and end users. We market our products internationally primarily through our direct sales force. We have sales offices in the United States, Germany, Italy, the United Kingdom, France, Spain, Japan, China, South Korea, Singapore, India and Russia.

We design and manufacture most of our key components used in our finished products, from semiconductor diodes to optical fibers and other components, finished fiber lasers and amplifiers. We also manufacture certain complementary products used with our lasers, including optical delivery cables, fiber couplers, beam switches, optical heads and chillers. Our vertically integrated operations allow us to reduce manufacturing costs, ensure access to critical components, rapidly develop and integrate advanced products and protect our proprietary technology.

We are listed on the Nasdaq Global Market (ticker: IPGP). We began our operations in Russia in 1990 and we were incorporated in Delaware in 1998. Our principal executive offices are located at 50 Old Webster Road, Oxford, Massachusetts 01540, and our telephone number is (508) 373-1100.

Industry Background

Conventional Laser Technologies

Since the laser was invented over 50 years ago, laser technology has revolutionized a broad range of applications and products in various industries, including general manufacturing, automotive, heavy industry, consumer products, electronics, semiconductors, research, medical and communications. Lasers provide flexible, non-contact and high-speed ways to process and treat various materials. They are incorporated into manufacturing and other systems by OEMs, system integrators and end users. For a wide variety of applications, lasers provide superior performance and a more cost-effective solution than non-laser technologies. Also, they are widely used to transmit large volumes of data in optical communications systems, in various medical applications and in test and measurement systems.

Lasers emit an intense light beam that can be focused on a small area, causing metals and other materials to melt, vaporize or change their character. These properties are utilized in applications requiring very high-power densities, such as cutting, welding, marking, engraving, drilling, cladding, annealing and other materials processing procedures. Lasers are well-suited for imaging and inspection applications, and the ability to confine laser light to narrow wavelengths makes them particularly effective in medical and sensing applications. A laser works by converting electrical energy to optical energy. In a laser, an energy source excites or pumps a lasing medium, which converts the energy from the source into an emission consisting of particles of light, called photons, at a particular wavelength.

Historically, CO₂ gas lasers and crystal lasers have been the two principal laser types used in materials processing and many other applications. They are named for the materials used to create the lasing action. A CO₂ laser produces light by electrically stimulating a gas-filled tube. A CO₂ laser delivers the beam through free space using mirrors to provide direction. A crystal laser uses an arc lamp, pulsed flash lamp, or diode stack or array to optically pump a special crystal. The most common crystal lasers use yttrium aluminum garnet, or YAG, crystals infused with neodymium or ytterbium. Some crystal lasers also use mirrors in free space to deliver the beam or direct the beam through fiber optics.

Introduction of Fiber Lasers

Fiber lasers use semiconductor diodes as the light source to pump specialty optical fibers, which are infused with rare earth ions. These fibers are called active fibers and are comparable in diameter to a human hair. The laser emission is created within optical fibers and delivered through a flexible optical fiber cable. As a result of their different design and components, fiber lasers are more electrically efficient, productive, reliable, robust and portable, and easier to operate than conventional lasers. In addition, fiber lasers free the end users from fine mechanical adjustments and the high maintenance costs that are typical for conventional lasers.

Although low-power fiber lasers have existed for approximately four decades, their increased recent adoption has been driven primarily by the significant scaling of output powers and the reductions in cost that we achieved over the last two decades, as well as their superior performance compared with conventional lasers. We have successfully increased output power levels by developing improved optical components such as active fibers that have increased their power capacities and improved their performance. Fiber lasers now offer output powers that exceed those of conventional lasers in many categories. Also, semiconductor diodes historically have represented the majority of the cost of fiber lasers. The high cost of diodes meant that fiber lasers could not compete with conventional lasers on price and limited their use to high value-added applications. Over the last several years, however, our semiconductor diodes have become more affordable and reliable due, in part, to

substantial advancements in semiconductor diode technology and increased production volumes. Also, component prices for fiber lasers have decreased as production volumes have risen, making fiber lasers cost-competitive and generally priced lower than competing lasers. As a result, the average cost per watt of output power has decreased dramatically over the last decade.

Because of these improvements, our fiber lasers can now effectively compete with conventional lasers over a wide range of output powers and applications, and we are developing new applications in which lasers have not been widely used before, for example in natural resource extraction. As a pioneer in the development and commercialization of fiber lasers, we have contributed to many advancements in fiber laser technology and products.

Advantages of Fiber Lasers over Conventional Lasers

We believe that fiber lasers provide a combination of benefits that include:

- ***Superior Performance.*** Fiber lasers provide high beam quality over the entire power range. In most conventional laser solutions, the beam quality is sensitive to output power, while in fiber lasers, the output beam is virtually non-divergent over a wide power range. A non-divergent beam enables higher levels of precision, increased power densities and the ability to deliver the beam over greater distances to where processing can be completed. The superior beam quality and greater intensity of a fiber laser's beam allow tasks to be accomplished more rapidly, with lower-power units and with greater flexibility than comparable conventional lasers.
- ***Lower Cost.*** Fiber lasers offer strong value to customers because of their generally lower required maintenance costs, high reliability and energy efficiency. Many high-power lasers have lower acquisition costs. Fiber lasers are cheaper to operate due to their lower energy usage, lower required maintenance costs and better processing speeds. Fiber lasers convert electrical energy to optical energy approximately 2 to 3 times more efficiently than diode-pumped YAG lasers, approximately 3 times more efficiently than conventional CO₂ lasers and approximately 15 to 30 times more efficiently than lamp-pumped YAG lasers. Because fiber lasers are much more energy-efficient and place lower levels of thermal stress on their internal components, they have substantially lower cooling requirements compared to those of conventional lasers, which also improves overall energy efficiency. Fiber lasers have lower to no maintenance costs due to the high performance and long life of our single-emitter diodes, fiber optics and other optical components, which can be used for up to 100,000 hours without replacement. The higher power density of the fiber laser beam also allows for higher processing speeds in many applications, which increases the operating efficiencies and reduces customer costs on a per-part basis.
- ***Ease of Use.*** Many features of fiber lasers make them easier to operate, maintain and integrate into laser-based systems as compared to conventional lasers. There are no moving parts in the fiber laser so they do not require adjustments of internal components.
- ***Compact Size and Portability.*** Fiber lasers are typically smaller and lighter in weight than conventional lasers, saving valuable floor space. While conventional lasers are delicate due to the precise alignment of mirrors, fiber lasers are more durable and able to perform reliably in variable environments both inside and outside a factory setting.
- ***Choice of Wavelengths and Precise Control of Beam.*** The design of fiber lasers generally provides a broad range of wavelength choices, allowing users to select the precise wavelength that best matches their application and materials. Because the beam is delivered through fiber optics, it can be directed to the work area over longer distances without loss of beam quality.

Fiber amplifiers are similar in design to fiber lasers, use many of the same components, such as semiconductor diodes and specialty optical fibers, and provide many of the same advantages in the applications that require amplification.

Notwithstanding the benefits offered by fiber lasers, there remain applications and processes where conventional laser technologies may provide superior performance with respect to particular features. For example, crystal lasers can provide higher peak power pulses and fiber lasers do not generate the deep ultraviolet light that is used for photolithography in many semiconductor applications. In addition, CO₂ lasers operate at wavelengths that are optimal for use on many non-metallic materials, including plastics.

Our Competitive Strengths

We believe that our key competitive strengths position us to take advantage of opportunities to displace traditional lasers and enable use of fiber lasers in new applications. Our key strengths and competitive advantages include:

World's Leading Producer of Fiber Laser Technology. We are the world's largest manufacturer of fiber lasers, which is a technologically advanced laser technology that provides superior electrical efficiency, superior beam quality, lower maintenance cost, longer life, more flexibility and higher productivity than other laser technologies. As a pioneer and technology leader in fiber lasers, we have built leading positions in our various end markets with a large and diverse customer base. Based on our leadership position, we are able to leverage our scale to lower costs for our customers and drive the proliferation of fiber lasers in existing and new applications. Our technology platform is modular, scalable and robust. Our fiber lasers offer higher continuous-wave, or CW, output powers than any other commercial laser in the market. We rely on several key proprietary technologies including pumping technology, manufacturing of fiber to withstand the high output power of our lasers, gain blocks and optics. In addition, we have developed a wide range of advanced proprietary optical components that contribute to the superior performance and reliability of our products.

Vertically Integrated Development and Manufacturing. We develop and manufacture all of our key high-volume specialty components, including semiconductor diodes, active fibers, passive fibers and specialty optical components. Our proprietary components are capable of handling the stress of the high optical powers from our products and we believe many of them exceed the performance of commercially available components. We believe that our vertical integration and our high-volume production enhances our ability to meet customer requirements, accelerate development, manage costs, improve component yields and protect our intellectual property, while maintaining high performance and quality standards.

Breadth and Depth of Expertise. Since the founding of our company in 1990, our core business has been developing, designing, manufacturing and marketing advanced fiber lasers and amplifiers. We have extensive know-how in materials sciences, which enables us to make our specialty optical fibers, semiconductor diodes and other critical components. We also have expertise in optical, electrical, mechanical and semiconductor engineering, which we use to develop and manufacture our proprietary components, products and systems.

Diverse Customer Base, End Markets and Applications. Our diverse customer base, end markets and applications provide us with many growth opportunities. In 2011, we shipped more than 15,000 units to over 1,700 customers worldwide, with no single customer representing more than 8% of our sales. Our products are used in a variety of applications and end markets worldwide. Our principal end markets and representative applications within those markets include:

Materials Processing

General manufacturing

- Welding, hybrid welding and brazing
- Cutting
- Marking, engraving and printing
- Annealing and hardening
- Prototyping, cladding and stripping

Automotive

- High-strength steel cutting and welding
- Welding tailored metal blanks, frames, seats and transmissions
- Brazing and welding of auto frames

Heavy industry

- Hardening and welding pipes in nuclear, wind turbine and pipeline industries
- Welding and cutting thick plates for ships and rail cars
- Drilling for natural resources

Aerospace

- Welding titanium air frames
- Cladding parts
- Percussion drilling of parts

Consumer

- Electronics and credit card marking
- Cutting and marking parts for electronics and medical devices
- Cutting and welding parts for consumer products and appliances
- Stent and pacemaker manufacturing

Semiconductor and electronics

- Computer disk manufacturing and texturing
- Photovoltaic manufacturing
- Wafer processing, memory repair and trim

Advanced Applications

- Obstacle warning and light detecting and ranging
- Special projects and research
- Materials destruction testing and sensing

Communications

- Broadband — fiber to premises
- Broadband — cable video signal transport
- Metro and long-haul wire-line DWDM transport

Medical

- Skin rejuvenation and wrinkle removal
- General surgery and urology
- Dental

Broad Product Portfolio and Ability to Meet Customer Requirements. We offer a broad range of standard and custom fiber lasers and amplifiers that operate between 0.5 and 2 microns, enabling deployment of our

products in a wide variety of applications and end markets. Our vertically integrated manufacturing and broad technology expertise enable us to design, prototype and commence high-volume production of our products rapidly, allowing our customers to meet their time-to-market requirements. Our manufacturing scale allows us to deliver large quantities of product with short lead times.

Our Strategy

Our objective is to maintain and extend our leadership position by pursuing the following key elements of our strategy:

Leverage Our Technology to Increase Sales. As fiber lasers become more widely accepted, we plan to leverage our position as the leader in fiber lasers and our applications expertise to develop solutions for customers and increase our position in the broader laser market. Over the last decade, our pulsed fiber lasers have become widely accepted in laser metal marking applications and now have a leading position in those applications. More recently, our high-power CW fiber lasers have been accepted by a growing number of laser cutting system OEMs for two- and three-dimension cutting, one of the largest laser materials processing applications. We plan to continue to leverage our fiber laser technology by pursuing large-scale laser applications where our fiber lasers offer improved customer value and performance. Some of the more significant applications we intend to target include: (i) welding of thick steel with our high-power lasers; (ii) micro-processing and ceramic cutting with our quasi-CW, or QCW, fiber lasers; (iii) processing of non-metals, such as plastics, with our new high-power thulium lasers; and (iv) fine-processing, scribing and marking with our high-power green lasers. We believe that our fiber lasers will continue to displace traditional lasers in many existing applications due to their superior performance and value.

Target New Applications for Lasers and Expand into Broader Markets. We intend to expand the use of fiber lasers into additional applications where lasers have not traditionally been used. We believe that the advantages of fiber laser technology can overcome many of the limitations that have hindered the adoption of conventional lasers in broader industrial markets and processes. Fiber lasers enable customers to complete tasks at lower cost, faster and more efficiently than non-laser tools. Using our manufacturing scale and technology innovations, we have been successful in reducing the cost of manufacturing with lasers, making fiber lasers a more attractive manufacturing alternative. We target applications where higher power, portability, efficiency, size and flexible fiber cable delivery can lead customers to adopt fiber lasers instead of non-laser solutions. For example, some of our fiber lasers are displacing traditional welding techniques used in shipbuilding, pipelines and spot welding used in automobile manufacturing. In addition, certain industry trends such as the use of high-strength steel in automotive manufacturing are driving the use of fiber lasers over other manufacturing methods such as stamping. We are working on developing new applications for fiber lasers through internal research and in partnership with industrial institutes and other strategic alliances.

Expand Our Product Portfolio. We plan to continue to invest in research and development to add additional wavelengths, power levels and other parameters while also improving beam quality, as well as developing new product lines and laser-based systems. Using our core processes, we plan to expand the wavelengths at which our lasers operate. This includes ultraviolet lasers that can be used for fine-processing applications and mid-infrared lasers that can be used for medical applications, non-metal materials processing and other novel applications. We are working to improve the output power of our green lasers for use in the semiconductor market. We will continue to focus on the development of specialized laser-based systems to meet the specific needs of manufacturing end users whose requirements are not met by standard systems or in certain geographic areas where fiber laser systems are not currently available. We are also improving the flexibility of existing products. For example, we have developed a 2 kW air-cooled laser for use in dry environments and an ultra-compact 1 kW fiber laser for use in applications requiring a small footprint.

Lower Our Costs Through Manufacturing Improvements and Innovation. We plan to seek further improvements in component manufacturing processes and device assembly as well as innovation in

components and device designs to improve performance and decrease the overall cost per watt for our products. As we increase our volumes, we are better able to negotiate price reductions with certain of our suppliers. We intend to leverage our technology and operations expertise to manufacture additional components in order to reduce costs, ensure component quality and ensure supply. In 2011, we redesigned the electronics of certain low and mid-power products to simplify manufacturing, improve quality and decrease costs. We also decreased the cost of packaged diodes. In addition, we manufactured additional components that we had previously outsourced. These initiatives are intended to decrease costs and allow us to further penetrate the market while sustaining profit margins. By reducing the cost per watt of our lasers and maintaining the lower operating cost of our products, we believe that we can increase laser use in applications in which conventional lasers could not be used economically.

Expand Global Reach to Attract Customers Worldwide. Our customers' manufacturing operations have expanded in emerging markets and are moving to lower-cost international locations. We have increased and will continue to increase our international sales and service locations to respond to our customers' needs. In 2011, we opened new application development centers as well as sales and service offices in Russia, Asia and Spain. We plan to open a sales and service center in Turkey in 2012 and we are considering increasing our presence in additional countries with large manufacturing infrastructures.

Products

We design and manufacture a broad range of high-performance optical fiber-based lasers and amplifiers. We also make packaged diodes, direct diode laser systems, communications systems and materials processing laser systems that utilize our optical fiber-based products. Many of our products are designed to be used as general-purpose energy or light sources, making them useful in diverse applications and markets.

Our products are based on a common proprietary technology platform using many of the same core components, such as semiconductor diodes and specialty fibers, which we configure to our customers' specifications. Our engineers and scientists work closely with OEMs and end users to develop and customize our products for their needs. Because of our flexible and modular product architecture, we offer products in different configurations according to the desired application, including modules, rack-mounted units and tabletop units. Our engineers and other technical experts work directly with the customer in our application and development centers to develop and configure the optimal solution for each customer's manufacturing requirements. We also make complementary products and components that are used with our high-power products, such as fiber couplers, beam switches, optical beam delivery cables and chillers.

Lasers

Our laser products include low (1 to 99 watts), medium (100 to 999 watts) and high (1,000 watts and above) output power lasers from 0.5 to 2 microns in wavelength. These lasers either may be CW, QCW or pulsed. We offer several different types of lasers, which are defined by the type of gain medium they use. These are ytterbium, erbium, thulium and Raman. We also sell fiber pigtailed packaged diodes and fiber coupled direct diode laser systems that use semiconductor diodes rather than optical fibers as their gain medium. In addition, we offer high-energy pulsed lasers, multi-wavelength lasers, tunable lasers, single-polarization and single-frequency lasers, as well as other versions of our products.

We believe that we produce the highest-power solid-state lasers in the industry. Our ytterbium fiber lasers reach power levels up of to 50,000 watts. We also make single-mode output ytterbium fiber lasers with power levels of up to 10,000 watts and single-mode output erbium and thulium fiber lasers with power levels of up to 400 watts. Our compact, durable design and integrated fiber optic beam delivery allow us to offer versatile laser energy sources and simple laser integration for complex production processes without compromising quality, speed or power.

We also sell laser diode chips and packaged laser diodes operating at 9XX nanometers. Recently, we started to sell our own family of high-power optical fiber delivery cables, fiber couplers, beam switches, chillers and other accessories for our fiber lasers.

IPG offers a retrofit service to replace CO₂ and YAG laser sources with fiber lasers in many welding, cutting, drilling and other systems, allowing customers to retain their existing laser systems. IPG also makes active and passive laser materials and tunable lasers in the middle-infrared region.

Amplifiers

Our amplifier products range from milliwatts to up to 1,500 watts of output power from 1 to 2 microns in wavelength. We offer erbium-doped fiber amplifiers, commonly called EDFAs, Raman amplifiers and integrated communications systems that incorporate our amplifiers. These products are predominantly deployed in broadband networks such as fiber to the home, or FTTH, fiber to the curb, or FTTC, and passive optical networks, or PON, and dense wavelength division multiplexing, or DWDM, networks. We also offer ytterbium and thulium specialty fiber amplifiers and broadband light sources that are used in advanced applications. In addition, we sell single-frequency, linearly polarized and polarization-maintaining versions of our amplifier products. As with our fiber lasers, our fiber amplifiers offer some of the highest output power levels and highest number of optical outputs in the industry. We believe our line of fiber amplifiers offers the best commercially available output power and performance.

Systems

Besides selling laser sources, we also offer integrated laser systems for particular geographic markets or custom-developed for a customer's manufacturing requirements. IPG makes a welding seam stepper and picker, which is an automated welding tool that integrates with our fiber lasers. The seam stepper and picker can be used in automotive assembly, sheet metal production and other materials processing applications. We also make laser marking and welding systems for certain applications and geographic markets. When requested by customers, we develop specialized laser systems for their unique applications.

The following table lists our principal product lines that generated a substantial majority of our revenues in 2011, and the principal applications markets in which they are used:

Product Line	Principal Markets	Principal Applications
High-Power Ytterbium CW (1,000 — 20,000 Watts)	Automotive Heavy Industry General Manufacturing Natural Resources	<ul style="list-style-type: none"> • Cutting • Welding • Annealing • Drilling • Cladding
Mid-Power Ytterbium CW (100 — 999 Watts)	General Manufacturing Consumer Medical Devices Printing Microelectronics	<ul style="list-style-type: none"> • Cutting • Welding • Scribing • Engraving • Rapid prototyping
Pulsed Ytterbium (0.1 to 200 Watts)	General Manufacturing Semiconductor Medical Devices Consumer Microelectronics Panel Displays	<ul style="list-style-type: none"> • Marking • Engraving • Scribing • Drilling • Coating removal • Cutting
Quasi-CW Ytterbium (100 — 900 Watts)	Medical Device Computer Components Micro-Processing	<ul style="list-style-type: none"> • Welding and micro-welding • Drilling • Cutting
Erbium Amplifiers	Broadband Access Cable TV DWDM Instrumentation Scientific Research	<ul style="list-style-type: none"> • Telephony • Video on demand • High-speed internet • Ultra-long-haul transmission • Beam combining

Our products are used in a broad range of applications. The major application is materials processing, comprising approximately 88% of our sales in 2011. Our products also address other applications, including advanced applications (approximately 6% of sales), communications (approximately 4% of sales) and medical (approximately 2% of sales).

Our Markets

Materials Processing

The most significant materials processing applications for fiber lasers are cutting and welding, and marking and engraving. Other applications include micro-processing, surface treatment, drilling, soldering, annealing, hardening, rapid prototyping and laser-assisted machining.

Cutting and Welding Applications. Laser-based cutting technology has several advantages compared to alternative technologies. Laser cutting is fast, flexible and highly precise and can be used to cut complex contours on flat, tubular or three-dimensional materials. The laser source can be programmed to process many different kinds of materials such as steel, aluminum, brass, copper, glass, ceramic and plastic at various thicknesses. Laser cutting technology is a non-contact process that is easy to integrate into an automated production line and is not subject to wear of the cutting medium. We sell low, mid and high-power ytterbium

fiber lasers for laser cutting. High electrical efficiency, low maintenance, operating wavelength, high beam quality, wide operating power range, power stability and small spot size are some of the qualities offered by fiber lasers for many cutting applications, which enable customers to cut a variety of materials faster.

Laser welding offers several important advantages compared to conventional welding technology as it is non-contact, easy to automate, provides high process speed and results in narrow-seamed, high-quality welds that generally require little or no post-processing machining. The high beam quality of our fiber lasers coupled with high CW power offer deep penetration welding as well as shallow conduction mode welding. In addition, fiber lasers can be focused to a small spot with extremely long focal lengths, enabling remote welding "on the fly," a flexible method of three-dimensional welding in which the laser beam is positioned by a robot-guided scanner. Such remote welding stations equipped with fiber lasers are used for welding door panels and seat backs, the multiple welding of spot and lap welds over the entire auto body frame and welding "body-in-white," which is welding pieces of metal with different thicknesses for automotive applications. Typically, mid to high-power ytterbium fiber lasers and long-pulse QCW ytterbium fiber lasers are used in welding applications. Our products are used also for laser brazing of visible joints in automobiles such as tailgates, roof joints and columns. Brazing is a method of connecting sheet metal.

Marking and Engraving. With the increasing need for source traceability, component identification and product tracking as a means of reducing product liability and preventing falsification, as well as the demand for modern robotic production systems, manufacturers increasingly demand marking systems capable of applying serialized alphanumeric, graphic or bar code identifications directly onto their manufactured components. Laser engraving is similar to marking but forms deeper grooves in the material. In contrast to conventional acid etching and ink-based technologies, lasers can mark a wide variety of metal and non-metal materials, such as ceramic, glass and plastic surfaces, at high speeds and without contact by changing the surface structure of the material or by engraving. Laser marking systems can be easily integrated into a customer's production process and do not subject the item being marked to mechanical stress. Our ytterbium pulsed fiber lasers are used for these applications.

In the semiconductor industry, lasers typically are used to mark wafers and integrated circuits. In the electronics industry, lasers typically are used to mark electrical components such as contactors, relays and printed circuit boards. Consumer electronic devices such as mobile phones, computers and handheld computers contain many parts that are laser-marked, including keyboards, logos and labels. With the increase in marking speed in the past few years, the cost of laser marking has decreased. In the photovoltaic or solar panel industry, pulsed lasers increasingly are used to remove materials and to scribe, or cut, solar cells. The high beam quality, increased peak output powers, flexible fiber delivery and competitive price of fiber lasers have accelerated the adoption of fiber lasers in these low-power applications.

Micro-Processing. The trend toward miniaturization in numerous industries such as consumer electronics, as well as innovations in materials and structures, is driving end users to utilize lasers in processing and fabrication. The ability of lasers to cut, weld, drill, ablate, etch and add materials on a fine scale is enabling new technologies and products across many industries. Our low-power CW and QCW lasers are used to cut medical stents and weld medical batteries. In photovoltaic manufacturing, our lasers etch and perform edge isolation processes. The aerospace industry requires precise manufacturing of engine parts so that cooling is effective and aerospace manufacturers use lasers to conduct percussive drilling. Our mid-power lasers are used in sintering, a laser-based three-dimensional prototyping method.

Advanced Applications

Our fiber lasers and amplifiers are utilized by commercial firms and by academic and government institutions worldwide for manufacturing of commercial systems and for research in advanced technologies and products. These markets may use specialty products developed by us or commercial versions of our products.

Obstacle Warning and Mapping. Our products are used for obstacle warning and 3-dimensional mapping of earth surfaces.

Special Projects. Due to the high power, compactness, performance, portability, ruggedness and electrical efficiency of our fiber lasers and amplifiers, we sell our commercial products for government research and projects. These include materials testing, ordnance destruction, coherent beam combining, directed energy demonstrations, advanced communications and research.

Research and Development. Our products are used in a variety of applications for research and development by scientists and industrial researchers, including atom trapping. In addition, our lasers and amplifiers are used to design, test and characterize components and systems in a variety of markets and applications.

Optical Pumping and Harmonic Generation. Several types of our lasers are used to optically pump other solid-state lasers and for harmonic generation and parametric converters to support research in sensing, medical and other scientific research in the infrared and visible wavelength domains. Our lasers are used as a power source for these other lasers. Green visible lasers are used to pump titanium sapphire lasers. Visible lasers can be used in optical displays, planetariums and light shows.

Remote Sensing. Our products are used in light detection and ranging, also called LIDAR, a laser technique for remote sensing. Optical fiber can be used as a sensor for measuring changes in temperature, pressure and gas concentration in oil wells, atmospheric and pollution measurements and seismic exploration.

Communications

We design and manufacture a DWDM transport system with varying output power and wavelengths and a full range of fiber amplifiers and Raman pump lasers that enhance data transmission in broadband access and DWDM optical networks. We are leveraging our high-power diode and fiber technology through the qualification and sale of high-value integrated solutions for network suppliers.

DWDM. DWDM is a technology that expands the capacity of optical networks, allowing service providers to extend the life of existing fiber networks and reduce operating and capital costs by maximizing bandwidth capacity. We provide a broad range of high-power products for DWDM applications including EDFAs and Raman lasers. We provide a DWDM transport system that offers service providers and private network operators a simple, flexible, optical layer solution scalable from 8 to 40 channels that operates at 10 gigabits per second per channel. We also have introduced a DWDM system capable of wavelengths operating at 40 gigabits per second per channel with optical terminal network, or OTN, multiplexing capabilities.

Broadband Access. The delivery to subscribers of television programming and Internet-based information and communication services is converging, driven by advances in IP technology and by changes in the regulatory and competitive environment. Fiber optic lines offer connection speeds of up to 1 gigabit per second, or 100 times faster than digital subscriber lines, or DSL, or cable links. We offer a series of specialty multi-port EDFAs and cable TV nodes and transmitters that support different types of passive optical network architectures, enabling high-speed data, voice, video on demand and high-definition TV. We provide an EDFA that supports up to 64 ports, which allows service providers to support a high number of customers in a small space, reducing overall power consumption and network cost. End users for our products include communications network operators for video wavelength division multiplexing overlay solutions, operators of metro and long-haul networks for DWDM and amplification solutions, as well as cable and multiple system operators for optical amplification solutions.

Medical

We sell our commercial fiber and diode lasers to OEMs that incorporate our products into their medical laser systems. CW erbium and thulium fiber lasers from 1 to 100 watts and diode laser systems can be used in various medical and biomedical applications. Aesthetic applications addressed by lasers include skin rejuvenation, skin resurfacing and stretch mark removal. Purchasers use our diode lasers in dental and skin tightening procedures. Surgical applications include prostate surgery. Fiber lasers have the ability to fine-tune optical penetration depth and absorption characteristics and can be used for ear, nose and throat, urology, gynecology and other surgical procedures.

Technology

Our products are based on our proprietary technology platform that we have developed and refined since our formation. The following technologies are key elements in our products.

Specialty Optical Fibers

We have extensive expertise in the disciplines and techniques that form the basis for the multi-clad active and passive optical fibers used in our products. Active optical fibers form the laser cavity or gain medium in which lasing or amplification of light occurs in our products. Passive optical fibers deliver the optical energy created in our products. Our active fibers consist of an inner core that is infused with the appropriate rare earth ion, such as ytterbium, erbium or thulium, and outer cores of un-doped glass having different indices of refraction. We believe that our large portfolio of specialty active and passive optical fibers has a number of advantages as compared to other commercially available optical fibers. These advantages include higher concentrations of rare earth ions, fibers that will not degrade at the high power levels over the useful life of the product, high lasing efficiency, ability to achieve single-mode outputs at high powers, ability to withstand high optical energies and temperatures and scalable side-pumping capability.

Semiconductor Diode Laser Processing and Packaging Technologies

Another key element of our technology platform is that we use multiple multi-mode, or broad area, single-emitter diodes rather than diode bars or stacks as a pump source. We believe that multi-mode single-emitter diodes are the most efficient and reliable pumping source presently available, surpassing diode bars and stacks in efficiency, brightness and reliability. Single-emitter diodes have substantially reduced cooling requirements and typically have estimated lifetimes of more than 100,000 hours at high operating currents, compared to typical lifetimes of up to 10,000 to 20,000 hours for diode bars.

We developed advanced molecular beam epitaxy techniques to grow alumina indium gallium arsenide wafers for our diodes. This method yields high-quality optoelectronic material for low-defect density and high uniformity of optoelectronic parameters. In addition, we have developed numerous proprietary wafer processes and testing and qualification procedures in order to create a high energy output in a reliable and high-power diode. We package our diodes in hermetically sealed pump modules in which the diodes are combined with an optical fiber output. Characteristics such as the ability of the package to dissipate heat produced by the diode and withstand vibration, shock, high temperature, humidity and other environmental conditions are critical to the reliability and efficiency of the products.

Specialty Components and Combining Techniques

We developed a wide range of advanced optical components that are capable of handling high optical power levels and contribute to the superior performance, efficiency and reliability of our products. In addition to fibers and diodes, our optical component portfolio includes fiber gratings, couplers, isolators and combiners. We also developed special methods and expertise in splicing fibers together with low optical energy loss and on-line loss

testing. We believe that our internal development and manufacturing of key optical components allows us to lower our manufacturing costs and improve product performance.

Side Pumping of Fibers and Fiber Block Technologies

Our technology platform allows us to efficiently combine a large number of multi-mode single-emitter semiconductor diodes with our active optical fibers that are used in all of our products. A key element of this technology is that we pump our fiber lasers through the cladding surrounding the active core. We splice our specialty active optical fibers with other optical components and package them in a sealed box, which we call a fiber block. The fiber blocks are compact and eliminate the risk of contamination or misalignment due to mechanical vibrations and shocks as well as temperature or humidity variations. Our design is scalable and modular, permitting us to make products with high output power by coupling a large number of diodes with fiber blocks, which can be combined in parallel and serially.

High-Stress Testing

We employ high-stress techniques in testing components and final products that help increase reliability and accelerate product development. For example, we test all of our diodes with high current and temperatures to accelerate aging. We also have built a large database of diode test results that allows us to predict the estimated lifetime of our diodes. This testing allows us to eliminate defective diodes prior to further assembly and thus increase reliability.

Customers

We sell our products globally to OEMs, system integrators and end users in a wide range of diverse markets who have the in-house engineering capability to integrate our products into their own systems. We have thousands of customers worldwide. Our primary end market is materials processing, comprised of general manufacturing, automotive, heavy industry, natural resources, aerospace, consumer products and medical device manufacturing, photovoltaic semiconductor and electronics customers. We also sell our products to other end markets, including advanced applications (comprised of commercial companies, universities, research entities and government entities), communications (comprised of system integrators, utilities and municipalities) and medical (comprised of medical laser systems manufacturers and researchers). We believe that our customer and end-market diversification minimizes dependence on any single industry or group of customers.

The following table shows the allocation of our net sales (in thousands) among our principal markets:

	Year Ended December 31,					
	2011		2010		2009	
Materials Processing	\$419,443	88.4%	\$252,014	84.2%	\$140,864	75.8%
Advanced Applications	25,918	5.5%	25,196	8.4%	26,557	14.3%
Communications	20,368	4.3%	14,020	4.7%	10,867	5.8%
Medical	8,753	1.8%	8,026	2.7%	7,606	4.1%
Total	<u>\$474,482</u>	<u>100.0%</u>	<u>\$299,256</u>	<u>100.0%</u>	<u>\$185,894</u>	<u>100.0%</u>

We sell to a broad and diverse customer base. Sales to our largest customer accounted for 8%, 7% and 3% of our net sales in 2011, 2010 and 2009, respectively.

Our net sales (in thousands) were derived from customers in the following geographic regions:

	Year Ended December 31,					
	2011		2010		2009	
North America(1)	\$ 86,181	18.2%	\$ 61,706	20.6%	\$ 45,668	24.6%
Europe:						
Germany	76,279	16.1%	46,282	15.5%	28,242	15.2%
Other including Eastern Europe/CIS	103,305	21.8%	66,174	22.1%	42,171	22.7%
Asia and Australia:						
Japan	63,261	13.3%	35,878	12.0%	29,937	16.1%
China	104,560	22.0%	57,762	19.3%	20,942	11.3%
Other	36,937	7.8%	30,614	10.2%	15,221	8.2%
Rest of World	3,959	0.8%	840	0.3%	3,713	2.0%
Total	<u>\$474,482</u>	<u>100.0%</u>	<u>\$299,256</u>	<u>100.0%</u>	<u>\$185,894</u>	<u>100.0%</u>

(1) The substantial majority of sales in North America are to customers in the United States.

Backlog

At December 31, 2011, our backlog of orders, generally scheduled for shipment within one year, was approximately \$207.0 million compared to \$171.6 million at December 31, 2010. At December 31, 2011, our backlog included \$124.1 million of orders with firm shipment dates and \$82.9 million of frame agreements that we expect to ship within one year, compared to \$98.6 million of orders with firm shipment dates and \$73.0 million of frame agreements at December 31, 2010. Frame agreements generally are agreements without committed shipment dates. Orders used to compute backlog are generally cancelable without substantial penalties. Historically, the rate of cancellation experienced by us has not been significant. We manage the risk of cancellation by establishing the right to charge a cancellation fee that generally covers a portion of the purchase price, any materials and development costs incurred prior to the order being cancelled. Our ability to enforce this right depends on many factors including, but not limited to, the customer's requested length of delay, the number of other outstanding orders with the customer and our ability to quickly convert the cancelled order to another sale.

We anticipate shipping a substantial majority of the present backlog during fiscal year 2012. However, our backlog at any given date is not necessarily indicative of actual sales for any future period.

Sales, Marketing and Support

We market our products internationally primarily through our direct sales force. Our direct sales force sells to end users, OEMs and systems integrators. Once our fiber laser products are designed into an OEM system, the OEM sales force markets the product, allowing us to take advantage of numerous OEM sales forces, each typically having several salespersons in locations other than where our sales offices are located. We have sales offices in the United States, Germany, Russia, Italy, France, Spain, China, Japan, South Korea, India, the United Kingdom, and Singapore. We have materials processing application centers in the United States, Germany, Russia, China, Italy, Japan and South Korea, which we use to demonstrate our products and develop new applications. Our application centers are fundamental to developing new laser applications for customers and assisting them in integrating lasers into their production processes.

To a lesser extent, we market through agreements with independent sales representatives and distributors. Our independent sales representatives and distributors are located in the United States, Russia, Japan, Brazil and Mexico. Sales to foreign customers are generally priced in local currencies and are therefore subject to currency exchange fluctuations.

We maintain a customer support and field service staff in our major markets. We work closely with customers and independent representatives to service equipment and to train customers to use our products. We may expand our support and field service, particularly in locations where customer concentration or volume requires local service capabilities. We repair products at our facilities or at customer sites.

We typically provide one to three-year parts and service warranties on our lasers and amplifiers. Most of our sales offices provide support to customers in their respective geographic areas. Warranty reserves have generally been sufficient to cover product warranty repair and replacement costs.

Manufacturing

Vertical integration is one of our core business strategies through which we control our proprietary processes and technologies as well as the supply of key components and assemblies. We believe that our vertically integrated business model gives us the following advantages:

- maintaining a technological lead over competitors;
- reducing component and final product costs compared to market prices available to competitors;
- ensuring access to critical components, enabling us to better meet customer demands;
- controlling performance, quality and consistency; and
- enabling rapid development and deployment of new products and technologies.

Our vertically integrated manufacturing operations include optical preform making, specialty fiber drawing, semiconductor wafer growth, diode processing and packaging, specialty optical component manufacturing, fiber block and fiber module assembly for different power units, software and electronics development, final assembly, as well as testing, tool manufacturing and automated production systems. Over the last several years, we added additional production capabilities, including three multi-wafer growth reactors, diode test stations, fiber pre-form and fiber drawing equipment and low, mid and high-power production and testing, in order to increase our capacity as well as reduce the risks associated with our production process.

We operate our own semiconductor foundry for the production of the multi-mode single-emitter diodes. Diodes are the pumps that are used as the light source in each device we make. We also process, package and extensively test all of our diodes. Because pump diodes represent a significant component cost of the final laser or amplifier, we have chosen to develop internal manufacturing capabilities for diodes. As a result of our high-volume production levels of pump diodes, proprietary processes and use of limited chip designs, we have been able to increase yields, lower component costs and assure high quality. We also design, manufacture and optimize many of our own test instruments, diode test racks, robotic and automated assembly tools and machines.

We developed these proprietary components, manufacturing tools, equipment and techniques over many years in an effort to address the major issues that had been inhibiting the development of fiber laser technology and to provide products that differentiate us from our competitors. We believe that the proprietary components, manufacturing tools, equipment, techniques and software utilized in all of our product lines provide extensive barriers to potential competitors. Generally, we do not sell our proprietary components to third parties. Using our technology platform, we configure standard products based upon each customer's specifications. Through our vertically integrated manufacturing operations, we can develop, test and produce new products and configurations with higher performance and reliability and in less time than by working with external vendors. We have developed proprietary testing methodologies that allow us to develop higher power components and products in short periods of time, enable us to introduce products to the market more quickly, capitalize on new opportunities and provide superior service to our customers.

Our in-house manufacturing generally includes only those operations and components that are critical to the protection of our intellectual property, the reduction of our costs or the achievement of performance and quality standards. We purchase from vendors common and specialized mechanical, electrical and optical parts and raw materials, such as printed circuit boards, wafer substrates and various optical components.

Research and Development

We have extensive research and development experience in laser materials, fiber and optoelectronic components. We have assembled a team of scientists and engineers with specialized experience and extensive knowledge in fiber lasers and amplifiers, critical components, testing and manufacturing process design.

We focus our research and development efforts on designing and introducing new and improved standard and customized products and the mass production of components for our products. In addition to our cladding-pumped specialty fiber platform, we have core competencies in high-power multi-mode semiconductor laser diodes, diode packaging, specialty active and passive optical fibers, high-performance optical components, fiber gain blocks and fiber modules, as well as coupling and combining techniques and high-stress test methods. Our research and development efforts are aided by our vertical integration and our proprietary high-stress testing techniques that result in accelerated development cycles. The strategy of developing our proprietary components has allowed us to leverage our optical experience and large volume requirements to lower the cost of our products. We concentrate our research and development efforts on advancements in performance as well as capacity to hold and produce higher optical power levels.

Our research and development efforts are also directed at expanding our product line by increasing power levels, improving beam quality and electrical efficiency, decreasing the size of our products and lowering the cost per watt. We also are engaged in research projects to expand the spectral range of products that we offer, including the development of a mid-IR line of lasers from 2 to 5 microns, with a hybrid fiber and crystal laser design. Our team of experienced scientists and engineers works closely with many of our customers to develop and introduce custom products that address specific applications and performance requirements.

We incurred research and development costs of approximately \$25.4 million in 2011, \$19.2 million in 2010 and \$18.5 million in 2009. We plan to continue our commitment to research and development and to introduce new products, systems and complementary products that would allow us to maintain our competitive position. See Item 7, "Management's Discussion and Analysis of Financial Condition of Results of Operations." We may seek to acquire additional specialized research and development capabilities to expand our research efforts.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws and contractual non-disclosure obligations to protect our intellectual property rights. The principal focus of our patenting activities is laser and amplifier designs and laser systems. As of February 22, 2012, we owned approximately 136 U.S. and international patents with expiration dates from 2012 through 2029 and approximately 145 pending U.S. and international patent applications. We pursue patent protection in our major markets. In February 2008, we purchased a portfolio of photonics patents from British Telecommunications plc in the fields of optical fiber lasers and amplifiers, semiconductor devices, integrated optics, fiber gratings, high-speed systems and optical networking. Intellectual property rights, including those that we own, those that we license and those of others, involve significant risks. See Item 1A, "Risk Factors-Our Inability to Protect Our Intellectual Property and Proprietary Technologies Could Result in the Unauthorized Use of Our Technologies by Third Parties, Hurt Our Competitive Position and Adversely Affect Our Operating Results." We also rely on trade secrets, technical know-how and other unpatented proprietary information relating to our product development and manufacturing activities.

Competition

Our markets are competitive and characterized by rapidly changing technology and continuously evolving customer requirements. We believe that the primary competitive factors in our markets are:

- product performance and reliability;
- quality and service support;
- price and value to the customer;
- ability to manufacture and deliver products on a timely basis;
- ability to achieve qualification for and integration into OEM systems;
- ability to meet customer specifications; and
- ability to respond quickly to market demand and technological developments.

We believe we compete favorably with respect to these criteria. In the materials processing market, the competition is fragmented and includes a large number of competitors. We compete with makers of high-power CO₂ and solid-state lasers, including Fanuc, Rofin-Sinar Technologies, Inc. and Trumpf GmbH + Co. KG, and makers of mid and low-power CO₂ and solid-state lasers such as Coherent, Inc., GSI Group Inc., Newport Corporation and Rofin-Sinar Technologies, Inc. We also compete with fiber laser makers, including Rofin-Sinar Technologies, Inc., Trumpf GmbH + Co. KG, GSI Group Inc., Coherent Inc., Hypertherm, Inc., Newport Corporation, The Furukawa Electric Co., Ltd., Keopsys SA, Mitsubishi Cable Industries, Ltd., Miyachi Unitek Corporation, Raycus Fiber Laser Technologies Co. Ltd. and JDS Uniphase Corporation. We believe that we compete favorably with other makers of fiber lasers on price and value to customer, reliability, service and performance. Several competitors recently introduced fiber lasers or announced plans to introduce fiber lasers that compete with our high-power products. We also compete in the materials processing, advanced and medical applications markets with end users that produce their own solid-state and gas lasers as well as with manufacturers of non-laser methods and tools, such as resistance welding and cutting dies in the materials processing market and scalpels in the medical market.

In the communications market, our principal competitors are manufacturers of mid-power fiber amplifiers and DWDM systems, such as Oclaro Inc., the Scientific-Atlanta division of Cisco Systems, Inc. (Scientific-Atlanta), Emcore Corporation, JDS Uniphase Corporation, Huawei Corporation and MPB Communications Inc. We believe that we compete favorably with other fiber amplifier producers with respect to price, product performance and output power.

Many of our competitors are larger than we are and have substantially greater financial, managerial and technical resources, more extensive distribution and service networks, greater sales and marketing capacity, and larger installed customer bases than we do.

Employees

As of December 31, 2011, we had approximately 2,137 full-time employees, including 184 in research and development, 1,646 in manufacturing operations, 122 in sales, service and marketing, and 185 in general and administrative functions. Of our total full-time employees at our principal facilities, approximately 659 were in the United States, 658 were in Germany, 608 were in Russia and 82 were in China. We have never experienced a work stoppage and none of our employees is subject to a collective bargaining agreement. We believe that our current relations with our employees are good.

Government Regulation

Regulatory Compliance

The majority of our laser and amplifier products sold in the United States are classified as Class IV Laser Products under the applicable rules and regulations of the Center for Devices and Radiological Health, or CDRH, of the U.S. Food and Drug Administration. The same classification system is applied in the European markets. Safety rules are formulated with “Deutsche Industrie Norm” (i.e., German Industrial Standards) or ISO standards, which are internationally harmonized.

CDRH regulations generally require a self-certification procedure pursuant to which a manufacturer must submit a filing to the CDRH with respect to each product incorporating a laser device, make periodic reports of sales and purchases and comply with product labeling standards, product safety and design features and informational requirements. Our product applications can result in injury to human tissue if directed at an individual or otherwise misused. The CDRH is empowered to seek fines and other remedies for violations of their requirements. We believe that our products are in material compliance with applicable laws and regulations relating to the manufacture of laser devices.

Environmental Regulation

Our operations are subject to various federal, state, local and international laws governing the environment, including those relating to the storage, use, discharge, disposal, product composition and labeling of, and human exposure to, hazardous and toxic materials. We believe that our operations are in material compliance with applicable environmental protection laws and regulations.

Although we believe that our safety procedures for using, handling, storing and disposing of such materials comply with the standards required by federal and state laws and regulations, we cannot completely eliminate the risk of accidental contamination or injury from these materials. In the event of such an accident involving such materials, we could be liable for damages and such liability could exceed the amount of our liability insurance coverage and the resources of our business.

Availability of Reports

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to such reports are available free of charge on our web site at www.ipgphotonics.com as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the Securities and Exchange Commission (www.sec.gov). We will also provide electronic or paper copies of such reports free of charge, upon request made to our Corporate Secretary.

ITEM 1A. RISK FACTORS

The factors described below are the principal risks that could materially adversely affect our operating results and financial condition. Other factors may exist that we do not consider significant based on information that is currently available. In addition, new risks may emerge at any time, and we cannot predict those risks or estimate the extent to which they may affect us.

Downturns in the geographic areas and markets we serve, particularly materials processing, could have a material adverse effect on our sales and profitability.

Our business depends substantially upon capital expenditures by our customers, particularly by manufacturers in the materials processing market, which includes general manufacturing, automotive, heavy industry, aerospace, consumer, semiconductor and electronics. Approximately 88.4% of our revenues in 2011 were from customers in the materials processing market. Although applications in this market are broad, sales for

these applications are cyclical and have historically experienced sudden and severe downturns and periods of oversupply, resulting in significantly reduced demand for capital equipment, including the products that we manufacture and market. For example, in 2009, our sales decreased by 25% in the materials processing market as a result of the global economic recession. For the foreseeable future, our operations will continue to depend upon capital expenditures by customers in this market, which, in turn, depend upon the demand for their products or services. Our sales have materially benefited in 2010 and 2011 from our increased sales of mid- and high-power lasers to end users in China. A slowing of economic growth, or a recession in China, would slow our growth rates or may result in a decrease in our sales. Decreased demand for products and services from customers for materials processing applications during an economic downturn or a decrease in purchases from end users in China may lead to decreased demand for our products, which would reduce our sales and margins. We may not be able to respond by decreasing our expenses quickly enough, due in part, to our fixed overhead structure related to our vertically integrated operations and our commitments to continuing investment in research and development.

Our business is impacted by global economic conditions and macroeconomic downturns can disrupt our business and sales and may harm our financial condition.

We have customers in many geographic areas. If a global economic downturn were to occur, we believe many of our customers would significantly decrease their capital expenditures to cut their costs. Accordingly, we believe our ability to generate sales is particularly sensitive to global and regional macroeconomic conditions. Adverse changes have occurred and may occur in the future as a result of declining or flat global or regional economic conditions, fluctuations in currency and commodity prices, wavering confidence, capital expenditure reductions, unemployment, declines in stock markets, contraction of credit availability, declines in real estate values, or other factors affecting economic conditions generally. These changes may negatively affect the sales of our lasers and amplifiers, increase exposure to losses from bad debts, increase the cost and decrease the availability of financing, increase the risk of loss on investments, or increase costs associated with manufacturing and distributing products. A prolonged economic downturn could have a material adverse effect on our business, financial condition and results of operations.

Uncertainty in the general economic conditions of markets in which we participate negatively affect our ability to estimate future income and expenditures.

Current and future conditions in the economy have an inherent degree of uncertainty. As a result, it is difficult to estimate the level of growth or contraction for the economy as a whole. It is even more difficult to estimate growth or contraction in various parts, sectors and regions of the economy, including the materials processing, telecommunications, advanced and medical markets and applications in which we participate. Because all components of our budgeting and forecasting are dependent upon estimates of growth or contraction in the markets and applications we serve and demand for our products, the prevailing economic uncertainties render estimates of future income and expenditures very difficult to make.

Our sales depend upon our ability to penetrate new applications for fiber lasers and increase our market share in existing applications.

Our level of sales will depend on our ability to generate sales of fiber lasers in applications where conventional lasers, such as CO₂ and YAG lasers, have been used or in new and developing markets and applications for lasers where they have not been used previously. To date, a significant portion of our revenue growth has been derived from sales of fiber lasers primarily for applications where CO₂ and YAG lasers historically have been used. In order to maintain or increase market demand for our fiber laser products, we will need to devote substantial resources to:

- demonstrate the effectiveness of fiber lasers in new applications;
- increase our direct and indirect sales efforts;

- effectively service and support our installed product base on a global basis;
- extend our product line to address new applications;
- develop new applications for our products; and
- continue to reduce our manufacturing costs and enhance our competitive position.

Fiber lasers are relatively new when compared to conventional lasers and our future success depends on the development and broader acceptance of fiber lasers. Potential customers may be reluctant to adopt fiber lasers as an alternative to conventional lasers, such as CO₂ and YAG, and non-laser methods, such as mechanical tools. Such potential customers may have substantial investments and know-how related to their existing laser and non-laser technologies, and may perceive risks relating to the reliability, quality, usefulness and cost-effectiveness of fiber lasers when compared to other laser or non-laser technologies available in the market. If we are unable to implement our strategy to develop new applications for our products, our revenues, operating results and financial condition could be adversely affected. We cannot assure you that we will be able to successfully implement our business strategy. In addition, our newly developed or enhanced products may not achieve market acceptance or may be rendered obsolete or less competitive by the introduction of new products by other companies.

Our vertically integrated business results in high levels of fixed costs and inventory levels that may adversely impact our gross profits and our operating results in the event that demand for our products declines or we maintain excess inventory levels.

We have a high fixed cost base due to our vertically integrated business model, including the fact that approximately 77% of our 2,137 employees as of December 31, 2011 were employed in our manufacturing operations. We may not adjust these fixed costs quickly enough to adapt to rapidly changing market conditions. Our gross profit, in absolute dollars and as a percentage of net sales, is impacted by our sales volume, the corresponding absorption of fixed manufacturing overhead expenses and manufacturing yields. In addition, because we are a vertically integrated manufacturer and design and manufacture our key specialty components, insufficient demand for our products may subject us to the risks of high inventory carrying costs and increased inventory obsolescence. If our capacity and production levels are not properly sized in relation to expected demand, we may need to record write-downs for excess or obsolete inventory. Because we are vertically integrated, the rate at which we turn inventory has historically been low when compared to our cost of sales. We do not expect this to change significantly in the future and believe that we will have to maintain a relatively high level of inventory compared to our cost of sales. As a result, we continue to expect to have a significant amount of working capital invested in inventory. Changes in our level of inventory lead to an increase in cash generated from our operations when inventory is sold or a decrease in cash generated from our operations at times when the amount of inventory increases.

The markets for our products are highly competitive and increased competition could increase our costs, reduce our sales or cause us to lose market share.

The industries in which we operate are characterized by significant price and technological competition. Our fiber laser and amplifier products compete with conventional laser technologies and amplifier products offered by several well-established companies, some of which are larger and have substantially greater financial, managerial and technical resources, more extensive distribution and service networks, greater sales and marketing capacity, and larger installed customer bases than we do. Also, we compete with widely used non-laser production methods, such as resistance welding. We believe that competition will be particularly intense from makers of CO₂, YAG, disc and direct diode lasers, as these makers of laser solutions may lower prices to maintain or increase current market share and have committed significant research and development resources to pursue opportunities related to these technologies.

In addition, we face competition from a growing number of fiber laser makers, including Rofin-Sinar Technologies, Inc., Trumpf GmbH + Co. KG, GSI Group Inc., Coherent Inc., Hypertherm, Inc., Newport Corporation, The Furukawa Electric Co., Ltd., Keopsys SA, Mitsubishi Cable Industries, Ltd., Miyachi Unitek Corporation, Raycus Fiber Laser Technologies Co. Ltd. and JDS Uniphase Corporation. Competition from other fiber laser makers has increased and some have introduced fiber lasers or announced plans to introduce fiber lasers that compete with our products. We may not be able to successfully differentiate our current and proposed products from our competitors' products and current or prospective customers may not consider our products to be superior to competitors' products. To maintain our competitive position, we believe that we will be required to continue a high level of investment in research and development, application development and customer service and support, and to react to market pricing conditions. We may not have sufficient resources to continue to make these investments and we may not be able to make the technological advances or price adjustments necessary to maintain our competitive position. We also compete against our OEM customers' internal production of competitive laser technologies.

Our manufacturing capacity and operations may not be appropriate for future levels of demand and may adversely affect our gross margins.

In response to an increase in demand for our fiber lasers, we added substantial manufacturing capacity at our facilities in the United States, Germany and Russia in the period from 2005 to 2008. Beginning in 2010, we entered another phase of expanding capacity at those manufacturing facilities. We continue to expand our capacity further in Russia. A significant portion of our manufacturing facilities and production equipment, such as our semiconductor production and processing equipment, diode packaging equipment and diode burn-in stations, are special-purpose in nature and cannot be adapted easily to make other products. If the demand for fiber lasers or amplifiers does not increase or decreases from current levels, we may have significant excess manufacturing capacity and under-absorption of our fixed costs, which could in turn adversely affect our gross margins and profitability.

To maintain our competitive position as the leading developer and manufacturer of fiber lasers and to meet anticipated demand for our products, we invested significantly in the expansion of our manufacturing and operations throughout the world and will do so in the future. We incurred in the past and will incur significant costs associated with the acquisition, build-out and preparation of our facilities. We had capital expenditures of \$53.0 million and \$28.4 million in 2011 and 2010, respectively, and we expect to incur approximately \$55 million to \$60 million in capital expenditures, excluding acquisitions, in 2012. In connection with these projects, we may incur cost overruns, construction delays, labor difficulties or regulatory issues which could cause our capital expenditures to be higher than what we currently anticipate, possibly by a material amount, which would in turn adversely impact our operating results. Moreover, we may experience higher costs due to yield loss, production inefficiencies and equipment problems until any operational issues associated with the opening of new manufacturing facilities are resolved.

The laser and amplifier industries are experiencing declining average selling prices, which could cause our gross margins to decline and harm our operating results.

Products in the laser and amplifier industries generally, and our products specifically, are experiencing and may in the future continue to experience a decline in average selling prices, or ASPs, as a result of new product and technology introductions, increased competition and price pressures from significant customers. If the ASPs of our products decline further and we are unable to increase our unit volumes, introduce new or enhanced products with higher margins or reduce manufacturing costs to offset anticipated decreases in the prices of our existing products, our operating results may be adversely affected. In addition, because of our significant fixed costs, we are limited in our ability to reduce total costs quickly in response to any revenue shortfalls. Because of these factors, we have experienced and we may experience in the future material adverse fluctuations in our operating results on a quarterly or annual basis if the ASPs of our products continue to decline.

Because we lack long-term purchase commitments from our customers, our sales can be difficult to predict, which could lead to excess or obsolete inventory and adversely affect our operating results.

We generally do not enter into long-term agreements with our customers obligating them to purchase our fiber lasers or amplifiers. Our business is characterized by short-term purchase orders and shipment schedules and, in some cases, orders may be cancelled or delayed without significant penalty. As a result, it is difficult to forecast our revenues and to determine the appropriate levels of inventory required to meet future demand. In addition, due to the absence of long-term volume purchase agreements, we forecast our revenues and plan our production and inventory levels based upon the demand forecasts of our OEM customers, end users and distributors, which are highly unpredictable and can fluctuate substantially. This could lead to increased inventory levels and increased carrying costs and risk of excess or obsolete inventory due to unanticipated reductions in purchases by our customers. In this regard, we recorded provisions for inventory totaling \$6.1 million, \$2.7 million and \$5.3 million in 2011, 2010 and 2009, respectively. These provisions were recorded as a result of changes in market prices of certain components, the value of those inventories that was realizable through finished product sales and uncertainties related to the recoverability of the value of inventories due to technological changes and excess quantities. If our OEM customers, end users or distributors fail to accurately forecast the demand for our products, fail to accurately forecast the timing of such demand, or are unable to consistently negotiate acceptable purchase order terms with customers, our results of operations may be adversely affected.

We may experience lower than expected manufacturing yields, which would adversely affect our gross margins.

The manufacture of semiconductor diodes and the packaging of them is a highly complex process. Manufacturers often encounter difficulties in achieving acceptable product yields from diode and packaging operations. We have from time to time experienced lower than anticipated manufacturing yields for our diodes and packaged diodes. This occurs during the production of new designs and the installation and start-up of new process technologies. If we do not achieve planned yields, our product costs could increase resulting in lower gross margins, and key component availability would decrease.

We are subject to litigation alleging that we are infringing third-party intellectual property rights. Intellectual property claims could result in costly litigation and harm our business.

In recent years, there has been significant litigation involving intellectual property rights in many technology-based industries, including our own. We face risks and uncertainties in connection with such litigation, including the risk that patents issued to others may harm our ability to do business; that there could be existing patents of which we are unaware that could be pertinent to our business; and that it is not possible for us to know whether there are patent applications pending that our products might infringe upon, since patent applications often are not disclosed until a patent is issued or published. Moreover, the frequency with which new patents are granted and the diversity of jurisdictions in which they are granted make it impractical and expensive for us to monitor all patents that may be relevant to our business.

From time to time, we have been notified of allegations and claims that we may be infringing patents or intellectual property rights owned by third parties. In 2007, we settled two patent infringement lawsuits filed against us and in 2010 we settled another patent infringement lawsuit filed against us.

In November 2006, IMRA America, Inc. filed an action against us alleging that certain products we produce infringe one U.S. patent allegedly owned by IMRA America. IMRA America alleged willful infringement and sought damages, including for alleged lost profits, of at least \$26 million through June 2011, treble damages, attorneys' fees and injunctive relief. IMRA America also alleged inducement of infringement and contributory infringement. We filed an answer in which we denied infringement and also filed declaratory judgment counterclaims based on this and other defenses. This lawsuit concerns products made, used, sold or offered for

sale in or imported into the United States and therefore the lawsuit affects products that account for a substantial portion of our revenues. This lawsuit does not concern products, or revenues that are derived from products, that are not made, used, sold or offered for sale in or imported into the United States. In June 2008, the U.S. Patent and Trademark Office, or USPTO, ordered re-examination of the patent claims asserted by IMRA America against the Company. In July 2009, the USPTO confirmed the patentability of all of the claims in the IMRA America patent over the prior art cited in the re-examination, as well as of new claims added during the re-examination. In August 2009, we submitted an additional re-examination request, which was denied by the USPTO. The USPTO issued a re-examination certificate in October 2009. The U.S. District Court for the Eastern District of Michigan adopted the claim construction of IMRA America on one of the four claim terms, but did not decide the others. In March 2011, the District Court granted our motion for partial summary judgment of no marking or no statutory notice, which had the effect of precluding IMRA America from seeking damages for any alleged infringing products sold prior to November 16, 2006, the date the lawsuit was filed, with the exception of four particular alleged infringing products, as to which IMRA America is precluded from seeking damages for sales prior to August 6, 2006. The U.S. District Court denied our motions for summary judgment on non-infringement, invalidity, no willful infringement and laches, and granted IMRA America's motions for summary judgment on no invalidity for derivation and no equitable misconduct. The trial occurred in September and October 2011, and the jury returned a unanimous verdict that we did not infringe IMRA America's patent. IMRA America has filed post-trial motions seeking to set aside the jury verdict. IMRA America also has the right to appeal the verdict. IMRA America has also informed us that it has patents and applications in the United States and in foreign jurisdictions directed to fiber lasers and fiber amplifiers, but has not asserted them against us. The Company has filed oppositions in Japan and Germany to two patents owned by IMRA America. In Japan, the patent office invalidated two claims and maintained 49 claims of the IMRA America patent, and we are appealing the decision. The German opposition is pending and there has been no decision.

There can be no assurance that we will be able to dispose without a material effect any post-trial motions or appeals made in the litigation with IMRA America, or claims or other allegations made or asserted in the future. The outcome of any litigation is uncertain. Even if we ultimately are successful on the merits of any such litigation or re-examination, legal and administrative proceedings related to intellectual property are typically expensive and time-consuming, generate negative publicity and divert financial and managerial resources. Some litigants may have greater financial resources than we have and may be able to sustain the costs of complex intellectual property litigation more easily than we can.

If we do not prevail in any intellectual property litigation brought against us, including the IMRA America litigation, it could affect our ability to sell our products and materially harm our business, financial condition and results of operations. These developments could adversely affect our ability to compete for customers and increase our revenues. Plaintiffs in intellectual property cases often seek, and sometimes obtain, injunctive relief. Intellectual property litigation commenced against us could force us to take actions that could be harmful to our business, competitive position, results of operations and financial condition, including the following:

- stop selling our products or using the technology that contains the allegedly infringing intellectual property;
- pay actual monetary damages, royalties, lost profits or increased damages and the plaintiff's attorneys' fees, which individually or in the aggregate may be substantial; and
- attempt to obtain a license to use the relevant intellectual property, which may not be available on reasonable terms or at all.

In addition, intellectual property lawsuits can be brought by third parties against OEMs and end users that incorporate our products into their systems or processes. In some cases, we indemnify OEMs against third-party infringement claims relating to our products and we often make representations affirming, among other things, that our products do not infringe the intellectual property rights of others. As a result, we may incur liabilities in connection with lawsuits against our customers. Any such lawsuits, whether or not they have merit, could be time-consuming to defend, damage our reputation or result in substantial and unanticipated costs.

Our inability to protect our intellectual property and proprietary technologies could result in the unauthorized use of our technologies by third parties, hurt our competitive position and adversely affect our operating results.

We rely on patents, trade secret laws, contractual agreements, technical know-how and other unpatented proprietary information to protect our products, product development and manufacturing activities from unauthorized copying by third parties. Although we acquired a patent portfolio in 2008 and started a program in 2007 to increase the number of patent applications we file, our patents do not cover all of our technologies, systems, products and product components and may not prevent third parties from unauthorized copying of our technologies, products and product components. We seek to protect our proprietary technology under laws affording protection for trade secrets. We also seek to protect our trade secrets and proprietary information, in part, by requiring employees to enter into agreements providing for the maintenance of confidentiality and the assignment of rights to inventions made by them while employed by us. We have significant international operations and we are subject to foreign laws which differ in many respects from U.S. laws. Policing unauthorized use of our trade secret technologies throughout the world and proving misappropriation of our technologies are particularly difficult, especially due to the number of our employees and operations in numerous foreign countries. The steps that we take to acquire ownership of our employees' inventions and trade secrets in foreign countries may not have been effective under all such local laws, which could expose us to potential claims or the inability to protect intellectual property developed by our employees. Furthermore, any changes in, or unexpected interpretations of, the trade secret and other intellectual property laws in any country in which we operate may adversely affect our ability to enforce our trade secret and intellectual property positions. Costly and time-consuming litigation could be necessary to determine the scope of our confidential information and trade secret protection. We also enter into confidentiality agreements with our consultants and other suppliers to protect our confidential information that we deliver to them. However, there can be no assurance that our confidentiality agreements will not be breached, that we will be able to effectively enforce them or that we will have adequate remedies for any breach.

Given our reliance on trade secret laws, others may independently develop similar or alternative technologies or duplicate our technologies and commercialize discoveries that we have made. Therefore, our intellectual property efforts may be insufficient to maintain our competitive advantage or to stop other parties from commercializing similar products or technologies. Many countries outside of the United States afford little or no protection to trade secrets and other intellectual property rights. Intellectual property litigation can be time-consuming and expensive, and there is no guarantee that we will have the resources to fully enforce our rights. If we are unable to prevent misappropriation or infringement of our intellectual property rights, or the independent development or design of similar technologies, our competitive position and operating results could suffer.

We depend upon internal production and on outside single or limited-source suppliers for many of our key components and raw materials. Any interruption in the supply of these key components and raw materials could adversely affect our results of operations.

We rely exclusively on our own production capabilities to manufacture certain of our key components, such as semiconductor diodes, specialty optical fibers and optical components. We do not have redundant production lines for some of our components, such as our diodes and some other components, which are made at a single manufacturing facility. These may not be readily available from other sources at our current costs. If our manufacturing facilities were damaged significantly or incapacitated, it could take a considerable length of time, or it could increase our costs, for us to resume manufacturing or find alternative sources of supply. Many of the tools and equipment we use are custom-designed, and it could take a significant period of time to repair or replace them. Our three major manufacturing facilities are located in Oxford, Massachusetts; Burbach, Germany; and Fryazino, Russia. If, as a result of a flood, fire, natural disaster, political unrest, act of terrorism, war, outbreak of disease or other similar event, any of our three major manufacturing facilities or equipment should become inoperable, inaccessible, damaged or destroyed, our business could be adversely affected to the extent that we do not have redundant production capabilities.

Also, we purchase certain raw materials used to manufacture our products and other components, such as semiconductor wafer substrates, modulators, micro-optics and bulk optics, from single or limited-source suppliers. In general, we have no long-term contractual supply arrangements with these suppliers. Some of our suppliers are also our competitors. Some of our suppliers reduced their inventory levels and manufacturing capacity because of the recent recession. As a result, we experienced and may in the future experience longer lead times or delays in fulfillment of our orders. Furthermore, other than our current suppliers, there are a limited number of entities from whom we could obtain these supplies. We do not anticipate that we would be able to purchase these components or raw materials that we require in a short period of time or at the same cost from other sources in commercial quantities or that have our required performance specifications. Any interruption or delay in the supply of any of these components or materials, or the inability to obtain these components and materials from alternate sources at acceptable prices and within a reasonable amount of time, could adversely affect our business. If our suppliers face financial or other difficulties, if our suppliers do not maintain sufficient inventory on hand or if there are significant changes in demand for the components and materials we obtain from them, they could limit the availability of these components and materials to us, which in turn could adversely affect our business.

We rely on the significant experience and specialized expertise of our senior management and scientific staff and if we are unable to retain these key employees and attract other highly skilled personnel necessary to grow our business successfully, our business and results of operations could suffer.

Our future success is substantially dependent on the continued service of our executive officers, particularly our founder and chief executive officer, Dr. Valentin P. Gapontsev, age 73, and the managing director of our German subsidiary IPG Laser GmbH, Dr. Eugene Scherbakov, age 64, our highly trained team of scientists, many of whom have numerous years of experience and specialized expertise in optical fibers, semiconductors and optical component technology, and other key engineering, sales, marketing, manufacturing and support personnel, any of whom may leave, which could harm our business. The members of our scientific staff who are expected to make significant individual contributions to our business are also members of our executive management team as disclosed under Item 10, "Directors, Executive Officers and Corporate Governance" below. Furthermore, our business requires scientists and engineers with experience in several disciplines, including physics, optics, materials sciences, chemistry and electronics. We will need to continue to recruit and retain highly skilled scientists and engineers for certain functions. Our future success also depends on our ability to identify, attract, hire, train, retain and motivate highly skilled research and development, managerial, operations, sales, marketing and customer service personnel. If we fail to attract, integrate and retain the necessary personnel, our ability to extend and maintain our scientific expertise and grow our business could suffer significantly.

We may pursue acquisitions and investments in new businesses, products, patents or technologies. These may involve risks which could disrupt our business and may harm our financial condition.

While we currently have no binding commitments or agreements to make any acquisitions or investments, in the future we may make acquisitions of and investments in new businesses, products, patents and technologies that we believe could complement, enhance or expand our current businesses or product lines or that might otherwise offer us growth opportunities.

We have limited experience in making acquisitions and, therefore, we may have difficulty identifying appropriate opportunities. Any acquisition or investment opportunities that we are able to identify may present a number of risks and challenges, including:

- inability to negotiate or finance the acquisition on favorable terms;
- diversion of management's attention from our existing businesses to integration of the operations and personnel of the acquired or combined business;
- possible adverse effects on our operating results during the integration process;

- failure of the acquired business or investment to achieve our long-term objectives, including operational, profitability and investment return objectives; and
- the inability to achieve other intended objectives of the transaction.

In addition, we may not be able to successfully or profitably integrate, operate, maintain and manage our newly acquired businesses, products, patents or technologies. We may not be able to maintain uniform standards, controls, procedures and policies, which may lead to operational inefficiencies. To complete future acquisitions, we may issue equity securities, incur debt, assume contingent liabilities or have amortization expenses and write-downs of acquired assets, which could adversely affect our profitability and result in dilution to our existing and future stockholders.

In addition, any future acquisition may involve companies, products or technologies located outside of the United States, which may further complicate the consummation and integration of the acquisition.

Failure to effectively build and expand our direct field service and support organization could have an adverse effect on our business.

We believe that it will become increasingly important for us to provide rapid, responsive service directly to our customers throughout the world and to build and expand our own personnel resources to provide these services. Any actual or perceived lack of direct field service in the locations where we sell or try to sell our products may negatively impact our sales efforts and, consequently, our revenues. Accordingly, we have an ongoing effort to develop our direct support systems worldwide. This requires us to recruit and train additional qualified field service and support personnel as well as maintain effective and highly trained organizations that can provide service to our customers in various countries. We may not be able to attract and train additional qualified personnel to expand our direct support operations successfully. We may not be able to find and engage additional qualified third-party resources to supplement and enhance our direct support operations. Further, we may incur significant costs in providing these direct field and support services. Failure to implement our direct support operation effectively could adversely affect our relationships with our customers, and our operating results may suffer.

A few customers account for a significant portion of our sales, and if we lose any of these customers or they significantly curtail their purchases of our products, our results of operations could be adversely affected.

We rely on a few customers for a significant portion of our sales. In the aggregate, our top five customers accounted for 17%, 19% and 12% of our consolidated net sales in 2011, 2010 and 2009, respectively. We generally do not enter into agreements with our customers obligating them to purchase our fiber lasers or amplifiers. Our business is characterized by short-term purchase orders and shipment schedules. If any of our principal customers discontinues its relationship with us, replaces us as a vendor for certain products or suffers downturns in its business, our business and results of operations could be adversely affected.

We have experienced, and expect to experience in the future, fluctuations in our quarterly operating results. These fluctuations may increase the volatility of our stock price.

We have experienced, and expect to continue to experience, fluctuations in our quarterly operating results. We believe that fluctuations in quarterly results may cause the market price of our common stock to fluctuate, perhaps substantially. Factors which may have an influence on our operating results in a particular quarter include:

- the increase, decrease, cancellation or rescheduling of significant customer orders;
- the timing of revenue recognition based on the delivery, installation or acceptance of certain products shipped to our customers;

- seasonality attributable to different purchasing patterns and levels of activity throughout the year in the areas where we operate;
- the timing of customer qualification of our products and commencement of volume sales of systems that include our products;
- our ability to obtain export licenses for our products and components on a timely basis or at all;
- the rate at which our present and future customers and end users adopt our technologies;
- the gain or loss of a key customer;
- product or customer mix;
- competitive pricing pressures;
- the relative proportions of our U.S. and international sales;
- our ability to design, manufacture and introduce new products on a cost-effective and timely basis;
- our ability to manage our inventory levels;
- any inventory write-downs related to excess quantities and obsolete items;
- the incurrence of expenses to develop and improve application and support capabilities, the benefits of which may not be realized until future periods, if at all;
- different capital expenditure and budget cycles for our customers, which affect the timing of their spending;
- foreign currency fluctuations; and
- our ability to control expenses.

These factors make it difficult for us to accurately predict our operating results. In addition, our ability to accurately predict our operating results is complicated by the fact that many of our products have long sales cycles, some lasting as long as twelve months. Once a sale is made, our delivery schedule typically ranges from four weeks to four months, and therefore our sales will often reflect orders shipped in the same quarter that they are received and will not enhance our ability to predict our results for future quarters. In addition, long sales cycles may cause us to incur significant expenses without offsetting revenues since customers typically expend significant effort in evaluating, testing and qualifying our products before making a decision to purchase them. Moreover, customers may cancel or reschedule shipments, and production difficulties could delay shipments. Accordingly, our results of operations are subject to significant fluctuations from quarter to quarter, and we may not be able to accurately predict when these fluctuations will occur.

Foreign currency transaction and translation risk may negatively affect our net sales, cost of sales and operating margins and could result in exchange losses.

We conduct our business and incur costs in the local currency of most countries in which we operate. In 2011, our net sales outside the United States represented a significant portion of our total sales. We incur currency transaction risk whenever one of our operating subsidiaries enters into either a purchase or a sales transaction using a different currency from the currency in which it receives revenues because exchange rates between two currencies can change between the transaction date and the time of settlement. Changes in exchange rates can also affect our results of operations by changing the translated U.S. dollar value of sales and expenses denominated in foreign currencies. We cannot accurately predict the impact of future exchange rate fluctuations on our results of operations. Further, given the volatility of exchange rates, we may not be able to effectively manage our currency transaction or translation risks, and any volatility in currency exchange rates may increase the price of our products in local currency to our foreign customers, which may have an adverse effect on our financial condition, cash flows and profitability.

We depend on our OEM customers and system integrators and their ability to incorporate our products into their systems.

Our sales depend in part on our ability to maintain existing and secure new OEM customers. Our revenues also depend in part upon the ability of our current and potential OEM customers and system integrators to develop and sell systems that incorporate our laser and amplifier products. The commercial success of these systems depends to a substantial degree on the efforts of these OEM customers and system integrators to develop and market products that incorporate our technologies. Relationships and experience with traditional laser makers, limited marketing resources, reluctance to invest in research and development and other factors affecting these OEM customers and third-party system integrators could have a substantial impact upon our financial results. If OEM customers or integrators are not able to adapt existing tools or develop new systems to take advantage of the features and benefits of fiber lasers, then the opportunities to increase our revenues and profitability may be severely limited or delayed. Furthermore, if our OEM customers or third-party system integrators experience financial or other difficulties that adversely affect their operations, our financial condition or results of operations may also be adversely affected.

We may not be able to effectively manage our growth and we may need to incur significant costs to address the operational requirements related to our growth, either of which could harm our business and operating results.

We have been experiencing a period of significant growth and expansion, both in the United States and internationally, which has required, and will continue to require, increased efforts of our management and other resources. Our recent and anticipated growth has placed, and is expected to continue to place, significant strain on our research and development, sales and marketing, operational and administrative resources. To manage our growth, we will need to continue to monitor our operational and financial systems and expand, train and manage our employees. For example, we must implement new modules of our management information and customer relationship management systems, hire and train new sales representatives, service, application, financial and information technology personnel, and expand our supply chain management and quality control operations. These may require substantial managerial and financial resources, and our efforts in this regard may not be successful. If we fail to adequately manage our expected growth, or to improve our operational, financial and management information systems, or fail to effectively motivate or manage our new and future employees, the quality of our products and the management of our operations could suffer and our operating results could be adversely affected.

Our inability to manage risks associated with our international customers and operations could adversely affect our business.

We have significant facilities in and our products are sold in numerous countries. The United States, Germany, Japan, Russia and China are our principal markets. A significant amount of our revenues are derived from customers, and we have substantial tangible assets, outside of the United States. We anticipate that foreign sales will continue to account for a significant portion of our revenues in the foreseeable future. Our operations and sales in these markets are subject to risks inherent in international business activities, including:

- longer accounts receivable collection periods and less-developed credit assessment and collection procedures;
- fluctuations in the values of foreign currencies;
- changes in a specific country's or region's economic conditions, such as recession;
- compliance with a wide variety of domestic and foreign laws and regulations and unexpected changes in those laws and regulatory requirements, including uncertainties regarding taxes, tariffs, quotas, export controls, export licenses and other trade barriers;
- certification requirements;

- environmental regulations;
- less effective protection of intellectual property rights in some countries;
- potentially adverse tax consequences;
- different capital expenditure and budget cycles for our customers, which affect the timing of their spending;
- political, legal and economic instability, foreign conflicts, and the impact of regional and global infectious illnesses in the countries in which we and our customers, suppliers, manufacturers and subcontractors are located;
- preference for locally produced products;
- difficulties and costs of staffing and managing international operations across different geographic areas and cultures;
- seasonal reductions in business activities; and
- fluctuations in freight rates and transportation disruptions.

Political and economic instability and changes in governmental regulations could adversely affect both our ability to effectively operate our foreign sales offices and the ability of our foreign suppliers to supply us with required materials or services. Any interruption or delay in the supply of our required components, products, materials or services, or our inability to obtain these components, materials, products or services from alternate sources at acceptable prices and within a reasonable amount of time, could impair our ability to meet scheduled product deliveries to our customers and could cause customers to cancel orders.

We are also subject to risks of doing business in Russia through our subsidiary, NTO IRE-Polus, which provides components and test equipment to us and sells finished fiber devices to customers in Russia and neighboring countries. The results of operations, business prospects and facilities of NTO IRE-Polus are subject to the economic and political environment in Russia. In 2010, a Russian investor purchased a minority interest in NTO IRE-Polus. As a minority investor, it has rights under Russian law, as well as under our negotiated agreements with it. Even though we control a supermajority of the shares and a majority of the board, certain actions require unanimous shareholder approval, including changes to capital, additional investments, use of proceeds other than initially agreed to uses and amounts, distributions, transactions in excess of agreed upon amounts and related party transactions. In recent years Russia has undergone substantial political, economic and social change. As is typical of an emerging market, Russia does not possess a well-developed business, legal and regulatory infrastructure that would generally exist in a more mature free market economy. In addition, the tax, currency and customs legislation within Russia is subject to varying interpretations and changes, which can occur frequently. The future economic direction of Russia remains largely dependent upon the effectiveness of economic, financial and monetary measures undertaken by the government, together with tax, legal, regulatory and political developments. Our failure to manage the risks associated with NTO IRE-Polus and our other existing and potential future international business operations could have a material adverse effect upon our results of operations.

Our products could contain defects, which may reduce sales of those products, harm market acceptance of our fiber laser products or result in claims against us.

The manufacture of our fiber lasers and amplifiers involves highly complex and precise processes. Despite testing by us and our customers, errors have been found, and may be found in the future, in our products. These defects may cause us to incur significant warranty, support and repair costs, incur additional costs related to a recall, divert the attention of our engineering personnel from our product development efforts and harm our relationships with our customers. These problems could result in, among other things, loss of revenues or a delay in revenue recognition, loss of market share, harm to our reputation or a delay or loss of market acceptance of our

fiber laser products. Defects, integration issues or other performance problems in our fiber laser and amplifier products could also result in personal injury or financial or other damages to our customers, which in turn could damage market acceptance of our products. Our customers could also seek damages from us for their losses. A product liability claim brought against us, even if unsuccessful, could be time-consuming and costly to defend.

We are subject to export control regulations that could restrict our ability to increase our international sales and may adversely affect our business.

A significant part of our business involves the export of our products to other countries. The U.S. government has in place a number of laws and regulations that control the export, re-export or transfer of U.S.-origin products, software and technology. The governments of other countries in which we do business have similar regulations regarding products, software and technology originating in those countries. These laws and regulations may require that we obtain a license before we can export, re-export or transfer certain products, components, software or technology. The requirement to obtain a license could put us at a competitive disadvantage by restricting our ability to sell products to, or service products for, customers in certain countries or by giving rise to delays or expenses related to obtaining a license. In applying for a license and responding to questions from licensing authorities, we have experienced and, in the future, may experience delays in obtaining export licenses based on issues solely within the control of the applicable government agency. Under the discretion of the issuing government agency, an export license may permit the export of one unit to a single customer or multiple units to one or more customers. Licenses may also include conditions that limit the use, resale, transfer, re-export, modification, disassembly, or transfer of a product, software or technology after it is exported without first obtaining permission from the relevant government agency. Failure to comply with these laws and regulations could result in government sanctions, including substantial monetary penalties, denial of export privileges, debarment from government contracts and a loss of revenues. Delays in obtaining or failure to obtain required export licenses may require us to defer shipments for substantial periods or cancel orders. Any of these circumstances could adversely affect our operations and, as a result, our financial results could suffer.

Our ability to access financial markets to finance a portion of our working capital requirements and support our liquidity needs may be adversely affected by factors beyond our control and could negatively impact our ability to finance our operations, meet certain obligations or implement our operating strategy.

We occasionally borrow under our existing credit facilities to fund operations, including working capital investments. Our major credit lines in the U.S. and Germany expire in June 2015 and June 2012, respectively. In the past, market disruptions experienced in the United States and abroad have materially impacted liquidity in the credit and debt markets, making financing terms for borrowers less attractive, and, in certain cases, have resulted in the unavailability of certain types of financing. Uncertainty in the financial markets may negatively impact our ability to access additional financing or to refinance our existing credit facilities or existing debt arrangements on favorable terms or at all, which could negatively affect our ability to fund current and future expansion as well as future acquisitions and development. These disruptions may include turmoil in the financial services industry, unprecedented volatility in the markets where our outstanding securities trade, and general economic downturns in the areas where we do business. If we are unable to access funds at competitive rates, or if our short-term or long-term borrowing costs increase, our ability to finance our operations, meet our short-term obligations and implement our operating strategy could be adversely affected.

Our ability to raise capital in the future may be limited, and our failure to raise capital when needed could prevent us from growing.

We may in the future be required to raise capital through public or private financing or other arrangements. Such financing may not be available on acceptable terms, or at all, and our failure to raise capital when needed could harm our business. Additional equity financing may be dilutive to the holders of our common stock, and debt financing, if available, may involve restrictive covenants and could reduce our profitability. If we cannot raise funds on acceptable terms, we may not be able to grow our business or respond to competitive pressures.

We are subject to various environmental laws and regulations that could impose substantial costs upon us and may adversely affect our business, operating results and financial condition.

Some of our operations use substances regulated under various federal, state, local and international laws governing the environment, including those relating to the storage, use, discharge, disposal, product composition and labeling of, and human exposure to, hazardous and toxic materials. We could incur costs, fines and civil or criminal sanctions, third-party property damage or personal injury claims, or could be required to incur substantial investigation or remediation costs, if we were to violate or become liable under environmental laws. Liability under environmental laws can be joint and several and without regard to comparative fault. Compliance with current or future environmental laws and regulations could restrict our ability to expand our facilities or require us to acquire additional expensive equipment, modify our manufacturing processes, or incur other significant expenses in order to remain in compliance with such laws and regulations. At this time, we do not believe the costs to maintain compliance with current environmental laws to be material. Although we do not currently anticipate that such costs will become material, if such costs were to become material in the future, whether due to unanticipated changes in environmental laws, unanticipated changes in our operations or other unanticipated changes, we may be required to dedicate additional staff or financial resources in order to maintain compliance. There can be no assurance that violations of environmental laws or regulations will not occur in the future as a result of the lack of, or failure to obtain, permits, human error, accident, equipment failure or other causes.

Dr. Valentin P. Gapontsev, our Chairman and Chief Executive Officer, and two trusts he created collectively control approximately 38% of our voting power and have a significant influence on the outcome of director elections and other matters requiring stockholder approval, including a change in corporate control.

Dr. Valentin P. Gapontsev, our Chairman and Chief Executive Officer, and IP Fibre Devices (UK) Ltd. (IPFD), of which Dr. Gapontsev is the managing director, together with two trusts he created beneficially own approximately 38% of our common stock. Trustees of the trusts are officers or employees of the Company. Dr. Gapontsev and the trusts have a significant influence on the outcome of matters requiring stockholder approval, including:

- election of our directors;
- amendment of our certificate of incorporation or by-laws; and
- approval of mergers, consolidations or the sale of all or substantially all of our assets.

Dr. Gapontsev and the trusts may vote their shares of our common stock in ways that are adverse to the interests of other holders of our common stock. These significant ownership interests could delay, prevent or cause a change in control of our company, any of which could adversely affect the market price of our common stock.

Anti-takeover provisions in our charter documents and Delaware law could prevent or delay a change in control of our company, even if a change in control would be beneficial to our stockholders.

Provisions of our certificate of incorporation and by-laws, including certain provisions that will take effect when Dr. Valentin P. Gapontsev, together with his affiliates and associates, ceases to beneficially own an aggregate of 25% or more of our outstanding voting securities, may discourage, delay or prevent a merger, acquisition or change of control, even if it would be beneficial to our stockholders. The existence of these provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock. These provisions include:

- authorizing the issuance of “blank check” preferred stock;
- establishing a classified board;

- providing that directors may only be removed for cause;
- prohibiting stockholder action by written consent;
- limiting the persons who may call a special meeting of stockholders;
- establishing advance notice requirements for nominations for election to the board of directors and for proposing matters to be submitted to a stockholder vote; and
- supermajority stockholder approval to change these provisions.

Provisions of Delaware law may also discourage, delay or prevent someone from acquiring or merging with our company or obtaining control of our company. Specifically, Section 203 of the Delaware General Corporation Law, which will apply to our company following such time as Dr. Gapontsev, together with his affiliates and associates, ceases to beneficially own 25% or more of the total voting power of our outstanding shares, may prohibit business combinations with stockholders owning 15% or more of our outstanding voting stock.

Substantial sales of our common stock, including shares issued upon the exercise of currently outstanding options or pursuant to our universal shelf registration statement, could cause our stock price to decline.

Sales of a substantial number of shares of common stock, or the perception that sales could occur, could adversely affect the market price of our common stock. As of December 31, 2011, we had 47,616,115 shares of common stock outstanding and approximately 2,724,572 shares subject to outstanding options. We have registered all shares of common stock that we may issue under our stock option plans and our employee stock ownership plan. In addition, all of the unregistered shares of our common stock are now eligible for sale under Rule 144 or Rule 701 under the Securities Act. As these shares are issued, they may be freely sold in the public market subject, in the case of any awards under our stock-based compensation plans, to applicable vesting requirements.

We currently have the ability to offer and sell common stock, preferred stock, warrants, debt and convertible securities under a currently effective universal shelf registration statement. In the future, we may issue additional options, warrants or other securities convertible into our common stock. Sales of substantial amounts of shares of our common stock or other securities under our universal shelf registration statement could lower the market price of our common stock and impair our ability to raise capital through the sale of equity securities.

If securities analysts stop publishing research or reports about our business, or if they downgrade our stock, the price of our stock could decline.

The trading market for our common stock relies in part on the research and reports that industry or financial analysts publish about us. If one or more of these analysts who cover us downgrade our stock, our stock price would likely decline. Further, if one or more of these analysts cease coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. *PROPERTIES*

Our main facilities at December 31, 2011 include the following:

<u>Location</u>	<u>Owned or Leased</u>	<u>Lease Expiration</u>	<u>Approximate Size (sq. ft.)</u>	<u>Primary Activity</u>
Oxford, Massachusetts	Owned	—	261,000	Diodes, components, complete device manufacturing, administration
Burbach, Germany	Owned	—	208,000	Optical fiber, components, final assembly, complete device manufacturing, administration
Fryazino, Russia	Leased	July 2016	69,000	Components, complete device manufacturing, administration
	Owned	—	35,000	
Beijing, China	Owned	—	35,000	Administration, service
Novi, Michigan	Owned	—	16,000	Administration, service
Cerro Maggiore, Italy	Owned	—	33,000	Complete device manufacturing, administration
Yokohama, Japan	Owned	—	11,000	Administration, service
Chubu, Japan	Owned	—	10,000	Administration, service

We maintain our corporate headquarters in Oxford, Massachusetts, and conduct research and development in Oxford, Massachusetts, Burbach, Germany and Fryazino, Russia. We operate four manufacturing facilities for lasers, amplifiers and components, which are located in the United States, Germany, Russia and Italy. We also manufacture certain optical components and systems in India and China. We are committed to meeting internationally recognized manufacturing standards. Our facilities in the United States and Germany are ISO 9001 certified and we have ISO certification in Russia for specific products. We have sales personnel at each of our manufacturing facilities, and at offices in Novi, Michigan; Santa Clara, California; London, England; Illkirch, France; Yokohama and Chubu, Japan; Daejeon, South Korea; Bangalore, India; Beijing, China; Singapore; and Barcelona, Spain.

We are implementing plans to expand and upgrade our operations in Russia, Germany and the United States to meet the demand for our products and our sales and support needs. We believe that we will be able to obtain additional land or commercial space as needed.

ITEM 3. *LEGAL PROCEEDINGS*

From time to time, we are party to various legal proceedings and other disputes incidental to our business, including those described below. For a discussion of the risks associated with these legal proceedings and other disputes, see Item 1A. “Risk Factors — We are subject to litigation alleging that we are infringing third-party intellectual property rights. Intellectual property claims could result in costly litigation and harm our business.”

In November 2006, IMRA America, Inc. filed an action against us alleging that certain products we produce infringe one U.S. patent allegedly owned by IMRA America. IMRA America alleged willful infringement and sought damages, including for alleged lost profits, of at least \$26 million through June 2011, treble damages, attorneys’ fees and injunctive relief. IMRA America also alleged inducement of infringement and contributory infringement. We filed an answer in which we denied infringement and also filed declaratory judgment counterclaims based on this and other defenses. This lawsuit concerns products made, used, sold or offered for sale in or imported into the United States and therefore the lawsuit affects products that account for a substantial

portion of our revenues. This lawsuit does not concern products, or revenues that are derived from products, that are not made, used, sold or offered for sale in or imported into the United States. In June 2008, the USPTO ordered re-examination of the patent claims asserted by IMRA America against the Company. In July 2009, the USPTO confirmed the patentability of all of the claims in the IMRA America patent over the prior art cited in the re-examination, as well as of new claims added during the re-examination. In August 2009, we submitted an additional re-examination request, which was denied by the USPTO. The USPTO issued a re-examination certificate in October 2009. The U.S. District Court adopted the claim construction of IMRA America on one of the four claim terms, but did not decide the others. In March 2011, the District Court granted our motion for partial summary judgment of no marking or no statutory notice, which had the effect of precluding IMRA America from seeking damages for any alleged infringing products sold prior to November 16, 2006, the date the lawsuit was filed, with the exception of four particular alleged infringing products, as to which IMRA America is precluded from seeking damages for sales prior to August 6, 2006. The U.S. District Court for the Eastern District of Michigan denied our motions for summary judgment on non-infringement, invalidity, no willful infringement and laches, and granted IMRA America's motions for summary judgment on no invalidity for derivation and no equitable misconduct. The trial occurred in September and October 2011, and the jury returned a unanimous verdict that we did not infringe IMRA America's patent. IMRA America has filed post-trial motions seeking to set aside the jury verdict. IMRA America also has the right to appeal the verdict.

ITEM 4. *MINE SAFETY DISCLOSURES*

Not applicable.

PART II

ITEM 5. *MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES*

Price Range of Common Stock

Our common stock is quoted on the Nasdaq Global Market under the symbol "IPGP". The following table sets forth the quarterly high and low sale prices of our common stock as reported on the Nasdaq Global Market.

	Common Stock Price Range	
	High	Low
First Quarter ended March 31, 2010	\$17.42	\$13.32
Second Quarter ended June 30, 2010	\$19.20	\$14.57
Third Quarter ended September 30, 2010	\$25.29	\$13.93
Fourth Quarter ended December 31, 2010	\$33.43	\$19.87
First Quarter ended March 31, 2011	\$61.63	\$29.37
Second Quarter ended June 30, 2011	\$78.59	\$53.08
Third Quarter ended September 30, 2011	\$76.07	\$42.66
Fourth Quarter ended December 31, 2011	\$58.16	\$33.33

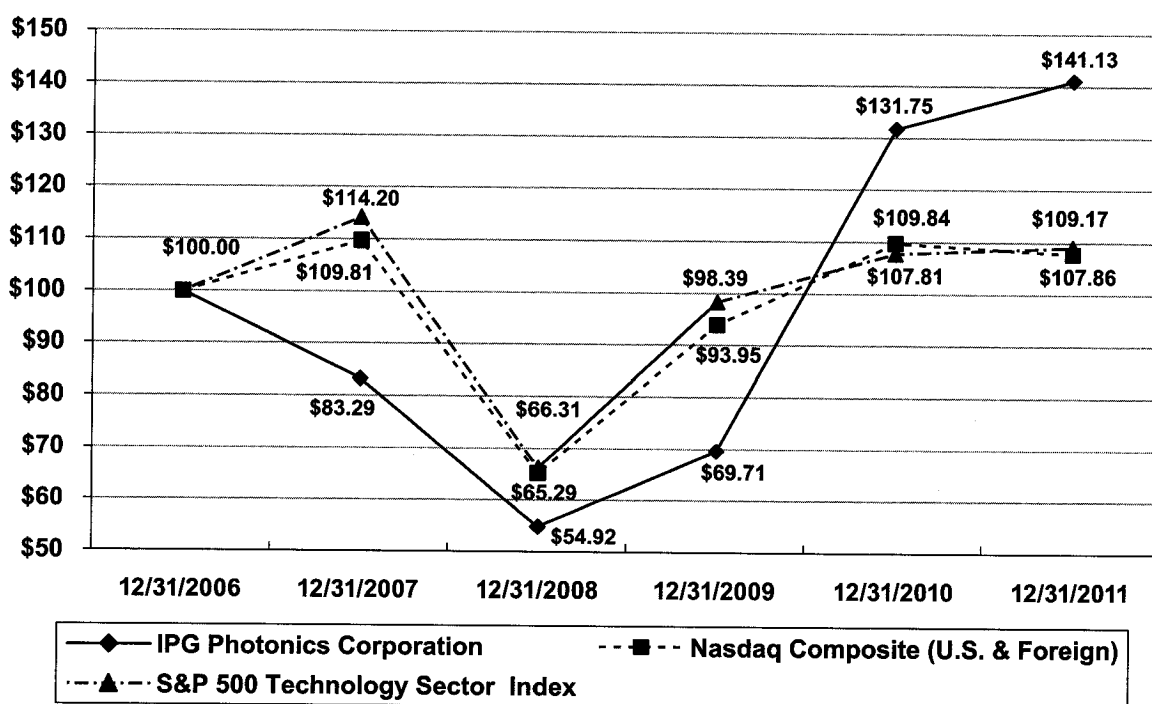
As of February 23, 2012, there were 47,680,519 shares of our common stock outstanding held by approximately 60 holders of record, which does not include beneficial owners of common stock whose shares are held in the names of various securities brokers, dealers and registered clearing agencies.

Stock Price Performance Graph

The following Stock Price Performance Graph and related information includes comparisons required by the SEC. The graph does not constitute “soliciting material” and should not be deemed “filed” or incorporated by reference into any other filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent that we specifically incorporate this information by reference into such filing.

The following graph presents the cumulative shareholder returns for our Common Stock compared with the NASDAQ Composite Index and the S&P Technology Sector Index. We selected these comparative groups due to industry similarities and the fact that they contain several direct competitors.

**COMPARISON OF CUMULATIVE TOTAL RETURN
AMONG THE COMPANY, THE NASDAQ COMPOSITE INDEX AND S&P 500
TECHNOLOGY SECTOR INDEX**



	5-Year Cumulative Total Return					
	12/31/2006	12/31/2007	12/31/2008	12/31/2009	12/31/2010	12/31/2011
IPG Photonics Corporation	\$100.00	\$ 83.29	\$54.92	\$69.71	\$131.75	\$141.13
Nasdaq Composite (U.S. & Foreign) ..	\$100.00	\$109.81	\$65.29	\$93.95	\$109.84	\$107.86
S&P 500 Technology Sector Index	\$100.00	\$114.20	\$66.31	\$98.39	\$107.81	\$109.17

The above graph represents and compares the value, through December 31, 2011, of a hypothetical investment of \$100 made at the closing price on December 31, 2006 in each of (i) our common stock, (ii) the NASDAQ Composite Stock Index and (iii) the S&P 500 Technology Sector Index, in each case assuming the reinvestment of dividends. The stock price performance shown in this graph is not necessarily indicative of, and not is intended to suggest, future stock price performance.

Dividends

We have never declared or paid any cash dividends on our capital stock. We anticipate that we will retain any future earnings to support operations and to finance the growth and development of our business. Therefore, we do not expect to pay cash dividends in the foreseeable future. Our payment of any future dividends will be at the discretion of our Board of Directors after taking into account any business conditions, any contractual and legal restrictions on our payment of dividends, and our financial condition, operating results, cash needs and growth plans. In addition, current agreements with certain of our lenders contain, and future loan agreements may contain, restrictive covenants that generally prohibit us from paying cash dividends, making any distribution on any class of stock or making stock repurchases.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

During the past three years, we have sold and issued the following unregistered securities:

1. In March 2009, we issued 293,146 unregistered shares of common stock as payment of the purchase price for a 31.6% noncontrolling interest in NTO IRE-Polus. The aggregate sale price for the shares was \$6,117,973.

2. In May 2009, we issued 75,000 unregistered shares of common stock as partial payment of the purchase price for the 20% noncontrolling interest in IPG Photonics (Japan), Ltd. IPG Photonics (Japan), Ltd. is now 100% owned by us. The aggregate sale price for the shares was \$848,000.

The sales of securities described above were deemed to be exempt from registration pursuant to Section 4(2) of the Securities Act and Regulation D promulgated thereunder as transactions by an issuer not involving a public offering. Each of these sales was to “accredited investors,” as such term is defined in Rule 501 of Regulation D. Each of the recipients of securities in the transactions deemed to be exempt from registration pursuant to Section 4(2) of the Securities Act received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration or an available exemption from such registration. None of the sales of the securities described above involved the use of an underwriter, and no commissions were paid in connection with the sale of any of the securities that we issued. The sales of these securities were made without general solicitation or advertising.

Issuer Purchases of Equity Securities

During the quarter ended December 31, 2011, there were no repurchases made by us or on our behalf, or by any “affiliated purchasers,” of shares of our common stock.

Information Regarding Equity Compensation Plans

The following table sets forth information with respect to securities authorized for issuance under our equity compensation plans as of December 31, 2011:

Equity Compensation Plan Information

<u>Plan Category</u>	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (Excluding Securities Reflected in Column (a)) (c)
Equity Compensation Plans			
Approved by Security Holders ...	2,724,572	\$20.78	7,009,548
Equity Compensation Plans Not			
Approved by Security Holders ...	<u>—</u>		<u>—</u>
Total	<u><u>2,724,572</u></u>		<u><u>7,009,548</u></u>

ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with, and is qualified by reference to, our consolidated financial statements and related notes and Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Annual Report on Form 10-K. The data as of December 31, 2011 and 2010, and for the years ended December 31, 2011, 2010 and 2009, is derived from our audited consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The data as of December 31, 2009, 2008 and 2007, and for the years ended December 31, 2008 and 2007, is derived from our audited consolidated financial statements and related notes not included in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results for any future period.

	Year Ended December 31,				
	2011	2010	2009	2008	2007
	(In thousands, except per share data)				
Consolidated Statement of Income Data:					
Net sales	\$474,482	\$299,256	\$185,894	\$229,076	\$188,677
Cost of sales	217,227	152,798	121,626	121,776	103,695
Gross profit	257,255	146,458	64,268	107,300	84,982
Operating expenses:					
Sales and marketing	21,731	19,100	15,157	13,900	10,103
Research and development	25,422	19,160	18,543	15,804	9,527
General and administrative	37,442	28,645	20,489	23,198	20,203
(Gain) loss on foreign exchange	(2,862)	(848)	1,022	(2,798)	(1,175)
Total operating expenses	81,733	66,057	55,211	50,104	38,658
Operating income	175,522	80,401	9,057	57,196	46,324
Interest (expense) income, net	(681)	(1,188)	(1,252)	(777)	674
Other (expense) income, net	(257)	39	(36)	145	612
Income before provision for income taxes	174,584	79,252	7,769	56,564	47,610
Provision for income taxes	(53,575)	(24,900)	(2,485)	(18,111)	(15,522)
Net income	121,009	54,352	5,284	38,453	32,088
Less: Net income (loss) attributable to noncontrolling interests	3,250	361	(135)	1,799	2,193
Net income attributable to IPG Photonics Corporation	117,759	53,991	5,419	36,654	29,895
Net income attributable to common shareholders	<u>\$117,759</u>	<u>\$ 53,991</u>	<u>\$ 5,419</u>	<u>\$ 36,654</u>	<u>\$ 29,895</u>
Net income per share:					
Basic	\$ 2.48	\$ 1.16	\$ 0.12	\$ 0.82	\$ 0.69
Diluted	\$ 2.41	\$ 1.13	\$ 0.12	\$ 0.79	\$ 0.65
Weighted-average shares outstanding:					
Basic	47,365	46,424	45,489	44,507	43,269
Diluted	48,685	47,594	46,595	46,223	45,749

	As of December 31,				
	2011	2010	2009	2008	2007
	(In thousands)				
Consolidated Balance Sheet Data:					
Cash and cash equivalents	\$180,234	\$147,860	\$ 82,920	\$ 51,283	\$ 37,972
Short-term investments	25,451	—	—	—	—
Working capital, excluding cash and cash equivalents and short-term investments	135,060	70,171	61,163	80,714	83,237
Total assets	608,132	441,855	312,636	313,218	263,321
Revolving line-of-credit facilities	7,057	6,841	6,007	19,769	11,218
Long-term debt, including current portion	17,339	16,977	18,000	19,330	20,000
Redeemable noncontrolling interests	46,123	24,903	—	—	—
Stockholders' equity - IPG Photonics	443,323	316,600	256,430	238,172	200,180

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with Item 6, "Selected Financial Data" and our consolidated financial statements and related notes included in this Annual Report of Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors including, but not limited to, those discussed under Item 1A, "Risk Factors."

Overview

We develop and manufacture a broad line of high-performance fiber lasers, fiber amplifiers and diode lasers that are used in numerous applications in diverse end markets. We sell our products globally to original equipment manufacturers, or OEMs, system integrators and end users. We market our products internationally primarily through our direct sales force.

We design and manufacture most of our key components used in our finished products, from semiconductor diodes to optical fibers and other components, finished fiber lasers and amplifiers. We also manufacture certain complementary products used with our lasers, including optical delivery cables, fiber couplers, beam switches, optical heads and chillers. Since our formation in 1990, we have been focused on developing and manufacturing high-power fiber lasers and amplifiers.

Description of Our Net Sales, Costs and Expenses

Net sales. We derive net sales primarily from the sale of fiber lasers and amplifiers. We also sell diode lasers, communications systems, laser systems and complementary products. We sell our products through our direct sales organization and our network of distributors and sales representatives, as well as system integrators. We sell our products to OEMs that supply materials processing laser systems, communications systems and medical laser systems to end users. We also sell our products to end users that build their own systems which incorporate our products or use our products as an energy or light source. Our scientists and engineers work closely with OEMs and end users to analyze their system requirements and match appropriate fiber laser or amplifier specifications. Our sales cycle varies substantially, ranging from a period of a few weeks to as long as one year or more, but is typically several months.

Sales of our products generally are recognized upon shipment, provided that no obligations remain and collection of the receivable is reasonably assured. Our sales typically are made on a purchase order basis rather than through long-term purchase commitments.

We develop our products to standard specifications and use a common set of components within our product architectures. Our major products are based upon a common technology platform. We continually enhance these and other products by improving their components and developing new components and new product designs.

The average selling prices of our products generally decrease as the products mature. These decreases result from factors such as decreased manufacturing costs and increases in unit volumes, increased competition, the introduction of new products and market share considerations. In the past, we have lowered our selling prices in order to penetrate new markets and applications. Furthermore, we offer volume discounts to customers that buy multiple units. We cannot predict the timing and degree of these price declines.

Cost of sales. Our cost of sales consists primarily of the cost of raw materials and components, direct labor expenses and manufacturing overhead. We are vertically integrated and currently manufacture all critical components for our products as well as assemble finished products. We believe our vertical integration allows us to increase efficiencies, leverage our scale and lower our cost of sales. Cost of sales also includes personnel costs and overhead related to our manufacturing and engineering operations, related occupancy and equipment costs, shipping costs and reserves for inventory obsolescence and for warranty obligations. Inventories are written off and charged to cost of sales when identified as excess or obsolete.

Due to our vertical integration strategy, we maintain a relatively high fixed manufacturing overhead. We may not adjust these fixed costs quickly enough to adapt to rapidly changing market conditions. Our gross margin is therefore significantly affected by our sales volume and the corresponding absorption of fixed manufacturing overhead expenses.

Sales and marketing. Our sales and marketing expense consists primarily of costs related to compensation, trade shows, professional and technical conferences, travel, facilities, depreciation of equipment used for demonstration purposes and other marketing costs.

Research and development. Our research and development expense consists primarily of compensation, development expenses related to the design of our products and certain components, and facilities costs. Costs related to product development are recorded as research and development expenses in the period in which they are incurred.

General and administrative. Our general and administrative expense consists primarily of compensation and associated costs for executive management, finance, legal and other administrative personnel, outside legal and professional fees, allocated facilities costs and other corporate expenses.

Factors and Trends That Affect Our Operations and Financial Results

Management believes that the following factors and trends are important in understanding our financial statements and overall financial performance.

Net sales. Our net sales grew from \$188.7 million in 2007 to \$474.5 million in 2011, representing a compound annual growth rate of approximately 25.9%. Net sales growth was driven by (i) increasing demand for our products, fueled by the decreasing average cost per watt of output power and resulting increased cost competitiveness compared to traditional lasers, (ii) the introduction of new products, including our high-power lasers with higher output power levels, (iii) the growing market acceptance of fiber lasers and (iv) the development of new applications for our products and new OEM customer relationships. Our annual revenue growth rates have varied. Net sales increased by 59% in 2011. In 2010, our net sales increased by 61%. In 2009 our net sales decreased by 19% primarily due to the global economic downturn. Prior to 2009, our growth rates were 21% in 2008 and 32% in 2007.

Our business depends substantially upon capital expenditures by our customers, particularly by manufacturers in the materials processing market, which include general manufacturing, automotive, aerospace, consumer, semiconductor and electronics. Approximately 88% of our revenues in 2011 were from customers in

the materials processing market. Although applications in this market are broad, the capital equipment market in general is cyclical and historically has experienced sudden and severe downturns. For the foreseeable future, our operations will continue to depend upon capital expenditures by customers in the materials processing market and will be subject to the broader fluctuations of capital equipment spending.

Our net sales have historically fluctuated from quarter to quarter. The increase or decrease in sales from a prior quarter can be affected by the timing of orders received from customers, the shipment, installation and acceptance of products at our customers' facilities, the mix of OEM orders and one-time orders for products with large purchase prices, and seasonal factors such as the purchasing patterns and levels of activity throughout the year in the regions where we operate. Historically, our net sales have been higher in the second half of the year than in the first half of the year. Furthermore, net sales can be affected by the time taken to qualify our products for use in new applications in the end markets that we serve. The adoption of our products by a new customer or qualification in a new application can lead to an increase in net sales for a period, which may then slow until we penetrate new markets or obtain new customers.

Gross margin. Our total gross margin in any period can be significantly affected by total net sales in any period, by product mix, that is, the percentage of our revenue in the period that is attributable to higher or lower-power products, and by other factors, some of which are not under our control.

Our product mix affects our margins because the selling price per watt is generally higher for low and mid-power devices than for high-power devices. The overall cost of high-power lasers may be partially offset by improved absorption of fixed overhead costs associated with sales of larger volumes of higher-power products because they use a greater number of optical components and drive economies of scale in manufacturing.

A high proportion of our costs is fixed so they are generally difficult or slow to adjust in response to changes in demand. In addition, our fixed costs increase as we expand our capacity. Gross margins generally decline if production volumes are lower as a result of a decrease in sales or a reduction in inventory because the absorption of fixed manufacturing costs will be reduced. Gross margins generally improve when the opposite occurs. In addition, absorption of fixed costs can benefit gross margins due to an increase in production that is not sold and placed into inventory. If both sales and inventory decrease in the same period, the decline in gross margin may be greater if we cannot reduce fixed costs or choose not to reduce fixed costs to match the decrease in the level of production. If we experience a decline in sales that reduces absorption of our fixed costs, or if we have production issues or inventory write-downs, our gross margins will be negatively affected.

We also regularly review our inventory for items that are slow-moving, have been rendered obsolete or determined to be excess. Any write-off of such slow-moving, obsolete or excess inventory affects our gross margins. For example, we recorded provisions for inventory totaling \$6.1 million, \$2.7 million and \$5.3 million in 2011, 2010 and 2009, respectively.

Sales and marketing expense. We expect to continue to expand our worldwide direct sales organization, build and expand applications centers, hire additional personnel involved in marketing in our existing and new geographic locations, increase the number of units for demonstration purposes and otherwise increase expenditures on sales and marketing activities in order to support the growth in our net sales. As such, we expect that our sales and marketing expenses will increase in the aggregate.

Research and development expense. We plan to continue to invest in research and development to improve our existing components and products and develop new components, products and systems. The amount of research and development expense we incur may vary from period to period. In general, if net sales continue to increase we expect research and development expense to increase in the aggregate.

General and administrative expense. We expect our general and administrative expenses to increase as we continue to invest in systems and resources to support our worldwide operations. Legal expenses vary from

quarter to quarter based upon the stage of litigation and associated level of litigation activity. Having won a jury verdict in a patent litigation in 2011, we expect legal expenses to decrease in 2012.

Major customers. While we have a broad and diverse customer base, we have historically depended on a few customers for a significant percentage of our annual net sales. The composition of this group can change from year to year. Sales derived from our five largest customers as a percentage of our annual net sales were 17% in 2011, 19% in 2010 and 12% in 2009. Sales to our largest customer accounted for 8%, 7% and 3% of our net sales in 2011, 2010 and 2009, respectively. We seek to add new customers and to expand our relationships with existing customers. We anticipate that the composition of our net sales to our significant customers will continue to change. If any of our significant customers were to substantially reduce their purchases from us, our results would be adversely affected.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses. By their nature, these estimates and judgments are subject to an inherent degree of uncertainty. On an ongoing basis we re-evaluate our judgments and estimates including those related to inventories, income taxes and the fair value of certain debt and equity instruments including stock-based compensation. We base our estimates and judgments on our historical experience and on other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making the judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from those estimates, which may materially affect our operating results and financial position. The accounting policies described below are those which, in our opinion, involve the most significant application of judgment, or involve complex estimation, and which could, if different judgments or estimates were made, materially affect our reported results of operations and financial position.

Revenue recognition. Our net sales are generated from sales of fiber lasers, fiber amplifiers, diode lasers and complementary products. Our products are used in a wide range of applications by different types of end users or used as components integrated into systems by OEMs or system integrators. We also sell communications systems that include our fiber lasers and amplifiers as components.

We recognize revenue when four basic criteria are met: (i) persuasive evidence of an arrangement exists; (ii) delivery has occurred or services have been rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured. Revenue from the sale of our products is generally recognized upon shipment, provided that the other revenue recognition criteria have been met. We have no obligation to provide upgrades, enhancements or customer support subsequent to the sale, other than warranty.

Revenue from orders with multiple deliverables is divided into separate units of accounting when certain criteria are met. The consideration for the arrangement is then allocated to the separate units of accounting based on their relative fair values. Our primary deliverables are equipment and installation services, for which we are able to identify the fair value. Installation services are based on a standard rate per day and are not a significant portion of our total revenue.

Returns and customer credits are infrequent and are recorded as a reduction to revenue. Rights of return generally are not included in sales arrangements. We receive a customer purchase order or contract as evidence of an arrangement and product shipment terms are typically free on board, or F.O.B., shipping point.

Periodically, our revenue arrangements include customer acceptance clauses. If an acceptance clause defines a performance requirement in a process or application that we cannot effectively test prior to delivery or that has not been accepted previously, we defer recognition of revenue until satisfaction of the performance requirement has been proved.

Inventory. Inventory is stated at the lower of cost (first-in, first-out method) or market value. Inventory includes parts and components that may be specialized in nature and subject to rapid obsolescence. We maintain a reserve for inventory items to provide for an estimated amount of excess or obsolete inventory. The reserve is based upon a review of inventory materials on hand, which we compare with estimated future usage and age. In addition, we review the inventory and compare recorded costs with estimates of current market value. Write-downs are recorded to reduce the carrying value to the net realizable value with respect to any part with costs in excess of current market value. Estimating demand and current market values is inherently difficult, particularly given that we make highly specialized components and products. We determine the valuation of excess and obsolete inventory by making our best estimate considering the current quantities of inventory on hand and our forecast of the need for this inventory to support future sales of our products. We often have limited information on which to base our forecasts. If future sales differ from these forecasts, the valuation of excess and obsolete inventory may change and additional inventory provisions may be required. Because of our vertical integration, a significant or sudden decrease in sales could result in a significant change in the estimates of excess or obsolete inventory valuation. We recorded inventory charges of \$6.1 million, \$2.7 million and \$5.3 million in 2011, 2010 and 2009, respectively.

Stock-based compensation. Stock-based compensation is included in the following financial statement captions as follows:

	Year Ended December 31,		
	2011	2010	2009
	(In thousands)		
Cost of sales	\$ 1,731	\$ 727	\$ 578
Sales and marketing	1,503	801	727
Research and development	1,036	446	344
General and administrative	3,778	1,222	1,118
Total stock-based compensation	8,048	3,196	2,767
Tax benefit recognized	(2,551)	(973)	(792)
Net stock-based compensation	<u>\$ 5,497</u>	<u>\$ 2,223</u>	<u>\$ 1,975</u>

We allocate and record stock-based compensation expense on a straight-line basis over the requisite service period.

We calculate the fair value of stock option grants using the Black-Scholes option pricing model. Determining the appropriate fair value model and calculating the fair value of stock-based payment awards require the use of highly subjective assumptions, including the expected life of the stock-based payment awards and stock price volatility. The assumptions used to calculate the fair value of stock-based payment awards represent management's best estimates, but the estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future. The weighted average assumptions used in the Black-Scholes model or the calculation of compensation were as follows:

	Year Ended December 31,		
	2011	2010	2009
Expected term	3.4-6.9 years	2.9-5.9 years	1.74-7.10 years
Volatility	46%-56%	42%-48%	46%-65%
Risk free rate of return	0.48%-2.82%	0.34%-2.68%	0.56%-2.78%
Dividend yield	0%	0%	0%
Forfeiture rate	0%-6.26%	0%-5.0%	2%-6.6%

As stock-based compensation expense recorded in our statements of operations is based on options ultimately expected to vest, it has been reduced for estimated forfeitures. We estimate forfeitures at the time of grant and revise these estimates, if necessary, in subsequent periods if actual forfeitures differ from the estimates.

We have offered an employee stock purchase plan covering our U.S. and German employees. The plan allows employees who participate to purchase shares of common stock through payroll deductions at a 15% discount to the lower of the stock price on the first day or last day of the six-month purchase period. Payroll deductions may not exceed 10% of the employee's compensation. Compensation expense related to the employee stock purchase plan for the years ended December 31, 2011, 2010 and 2009, was approximately \$359,000, \$206,000 and \$205,000, respectively.

Income taxes and deferred taxes. Our annual tax rate is based on our income, statutory tax rates and tax planning opportunities available to us in the various jurisdictions in which we operate.

We file federal and state income tax returns in the United States and tax returns in nine international jurisdictions. We must estimate our income tax expense after considering, among other factors, intercompany transactions on an arm's length basis, differing tax rates between jurisdictions, allocation factors, tax credits, nondeductible items and changes in enacted tax rates. Significant judgment is required in determining our annual tax expense and in evaluating our tax positions. As we continue to expand globally, there is a risk that, due to complexity within and diversity among the various jurisdictions in which we do business, a governmental agency may disagree with the manner in which we have computed our taxes. Additionally, due to the lack of uniformity among all of the foreign and domestic taxing authorities, there may be situations where the tax treatment of an item in one jurisdiction is different from the tax treatment in another jurisdiction or that the transaction causes a tax liability to arise in another jurisdiction.

Deferred taxes arise because of the different treatment between financial statement accounting and tax accounting, known as "temporary differences." The tax effects of these temporary differences are recorded as deferred tax assets and deferred tax liabilities on the consolidated balance sheet. At December 31, 2011, we recorded a net deferred tax asset of \$10.3 million. If insufficient evidence of our ability to generate future taxable income arises, we may be required to record a valuation allowance against these assets, which will result in additional income tax expense. On a quarterly basis, we evaluate whether the deferred tax assets may be realized in the future and assess the need for a valuation allowance.

We provide reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. Reserves recorded are based on a determination of whether and how much of a tax benefit taken by us in our tax filings or positions is "more likely than not" to be realized following resolution of any potential contingencies present related to the tax benefit, assuming that the matter in question will be raised by the tax authorities. Potential interest and penalties associated with such uncertain tax positions is recorded as a component of income tax expense. At December 31, 2011, we had unrecognized tax benefits of approximately \$4.5 million that, if recognized, would be recorded as a reduction in income tax expense.

Deferred tax liabilities are not recorded for undistributed earnings of a foreign subsidiary that are deemed to be indefinitely reinvested in the foreign jurisdiction. Historically, we have reinvested the undistributed earnings of our foreign subsidiaries. We intend to continue to do this and keep such earnings indefinitely reinvested in the applicable tax jurisdictions.

Results of Operations

The following table sets forth selected statement of operations data for the periods indicated in dollar amounts and expressed as a percentage of net sales.

	Year Ended December 31,					
	2011		2010		2009	
	(In thousands, except percentages and per share data)					
Net sales	\$474,482	100.0%	\$299,256	100.0%	\$185,894	100.0%
Cost of sales	217,227	45.8	152,798	51.1	121,626	65.4
Gross profit	257,255	54.2	146,458	48.9	64,268	34.6
Operating expenses:						
Sales and marketing	21,731	4.6	19,100	6.4	15,157	8.2
Research and development	25,422	5.4	19,160	6.4	18,543	10.0
General and administrative	37,442	7.9	28,645	9.6	20,489	11.0
(Gain) loss on foreign exchange	(2,862)	(0.6)	(848)	(0.3)	1,022	0.5
Total operating expenses	81,733	17.2	66,057	22.1	55,211	29.7
Operating income	175,522	37.0	80,401	26.9	9,057	4.9
Interest expense, net	(681)	(0.1)	(1,188)	(0.4)	(1,252)	(0.7)
Other (expense) income, net	(257)	(0.1)	39	0.0	(36)	(0.0)
Income before provision for income taxes	174,584	36.8	79,252	26.5	7,769	4.2
Provision for income taxes	(53,575)	(11.3)	(24,900)	(8.3)	(2,485)	(1.3)
Net income	121,009	25.5	54,352	18.2	5,284	2.8
Less: Net income (loss) attributable to noncontrolling interests	3,250	0.7	361	0.1	(135)	(0.1)
Net income attributable to IPG Photonics Corporation	\$117,759	24.8%	\$ 53,991	18.0%	\$ 5,419	2.9%
Net income attributable to IPG Photonics Corporation per share:						
Basic	\$ 2.48		\$ 1.16		\$ 0.12	
Diluted	\$ 2.41		\$ 1.13		\$ 0.12	
Weighted-average shares outstanding:						
Basic	47,365		46,424		45,489	
Diluted	48,685		47,594		46,595	

Comparison of Year Ended December 31, 2011 to Year Ended December 31, 2010

Net sales. Net sales increased by \$175.2 million, or 58.6%, to \$474.5 million in 2011 from \$299.3 million in 2010. The table below sets forth sales by application (in thousands, except for percentages):

	Year Ended December 31,					
	2011		2010		Change	
		% of Total		% of Total		
Materials Processing	\$419,443	88.4%	\$252,014	84.2%	\$167,429	66.4%
Advanced Applications	25,918	5.5%	25,196	8.4%	722	2.9%
Communications	20,368	4.3%	14,020	4.7%	6,348	45.3%
Medical	8,753	1.8%	8,026	2.7%	727	9.1%
Total	\$474,482	100.0%	\$299,256	100.0%	\$175,226	58.6%

Sales for materials processing applications increased due to substantially increased sales of high-power lasers used in cutting and welding applications and pulsed lasers used in marking and engraving applications. Sales for communications applications increased due to increased sales of amplifiers in both the United States and Russia. Sales for medical applications increased due to increased demand from our primary medical applications customer in the United States and sales to new customers in Europe and Asia. The increase in sales of advanced applications was due to higher sales of high-power lasers used in university applications partially offset by decreased sales for optical pumping and research and development applications.

Cost of sales and gross margin. Cost of sales increased by \$64.4 million, or 42.2%, to \$217.2 million in 2011 from \$152.8 million in 2010. Our gross margin increased to 54.2% in 2011 from 48.9% in 2010. The increase in gross margin was the result of an increase in net sales and more favorable absorption of our fixed manufacturing costs due to an increase in production volume. In addition, cost of sales benefited from a reduction in the cost per watt of our diodes and lower costs associated with greater use of internally manufactured components and accessories. Expenses related to inventory reserves and other valuation adjustments increased by \$3.4 million to \$6.1 million, or 1.3% of sales, for the year ended December 31, 2011, as compared to \$2.7 million, or 0.9% of sales, for the year ended December 31, 2010.

Sales and marketing expense. Sales and marketing expense increased by \$2.6 million, or 13.7%, to \$21.7 million in 2011 from \$19.1 million in 2010, primarily as a result of an increase in personnel costs due to an increase in headcount and bonus accruals. As a percentage of sales, sales and marketing expense decreased to 4.6% in 2011 from 6.4% in 2010. As we continue to expand our worldwide sales organization, we expect expenditures on sales and marketing to continue to increase in the aggregate.

Research and development expense. Research and development expense increased by \$6.2 million, or 32.7%, to \$25.4 million in 2011 from \$19.2 million in 2010. This increase was primarily the result of an increase in personnel, consultant costs, and an increase in materials used in research and development activities. The increase in personnel costs was driven primarily by increases in headcount and bonus accruals. Research and development activity continues to focus on enhancing the performance of our internally manufactured components, refining production processes to improve manufacturing yields, developing new products operating at different wavelengths and higher output powers and new complementary accessories used with our products. As a percentage of sales, research and development expense decreased to 5.4% in 2011 from 6.4% in 2010. We expect that research and development expenses will increase in 2012.

General and administrative expense. General and administrative expense increased by \$8.8 million, or 30.7%, to \$37.4 million in 2011 from \$28.6 million in 2010, primarily due to a \$5.7 million increase in personnel attributable to higher bonuses and stock compensation and \$2.3 million increase in accounting and legal fees primarily related to higher legal costs incurred in defending a patent infringement action brought against us. As a percentage of sales, general and administrative expense decreased to 7.9% in 2011 from 9.6% in 2010. In the future, we expect general and administrative expenses to increase as we invest to support the expected growth in net sales.

Effect of exchange rates on sales, gross margin and operating expenses. We estimate that if exchange rates had been the same as one year ago, sales in 2011 would have been \$17.2 million lower, gross margin would have been \$7.1 million lower and total operating expenses would have been \$2.0 million lower. The measures that assume constant exchange rates between fiscal year 2011 and fiscal year 2010 are calculated using the average exchange rates for the twelve-month period ended December 31, 2010 for the respective currencies, which were Euro 1=US\$1.33, Japanese Yen 1= US\$0.01 and Russian Ruble 1=US\$0.03.

Gain (loss) on foreign exchange. We incurred a foreign exchange gain of \$2.9 million in 2011 as compared to a gain of \$0.8 million in 2010. The change was primarily attributable to the depreciation of the Euro against the U.S. Dollar and Japanese Yen.

Interest expense, net. Interest expense, net was \$0.7 million in 2011 compared to \$1.2 million in 2010.

Provision for income taxes. Provision for income taxes was \$53.6 million in 2011 compared to \$24.9 million in 2010, representing an effective tax rate of 30.7% in 2011 and 31.4% in 2010. The increase in the provision for income taxes was due to an increase in income before the provision for income taxes, while the decrease in the effective rate was due to the proportion of income earned in countries with lower enacted tax rates.

Net income. Net income attributable to IPG Photonics Corporation increased by \$63.8 million to \$117.8 million in 2011 from \$54.0 million in 2010. Net income attributable to IPG Photonics Corporation as a percentage of our net sales increased by 6.8 percentage points to 24.8% in 2011 from 18.0% in 2010 due to the factors described above.

Comparison of Year Ended December 31, 2010 to Year Ended December 31, 2009

Net sales. Net sales increased by \$113.4 million, or 61.0%, to \$299.3 million in 2010 from \$185.9 million in 2009. The table below sets forth sales by application (in thousands, except for percentages):

	Year Ended December 31,					
	2010		2009		Change	
		% of Total		% of Total		%
Materials Processing	\$252,014	84.2%	\$140,864	75.8%	\$111,150	78.9%
Advanced Applications	25,196	8.4%	26,557	14.3%	(1,361)	(5.1)%
Communications	14,020	4.7%	10,867	5.8%	3,153	29.0%
Medical	8,026	2.7%	7,606	4.1%	420	5.5%
Total	<u>\$299,256</u>	<u>100.0%</u>	<u>\$185,894</u>	<u>100.0%</u>	<u>\$113,362</u>	<u>61.0%</u>

Sales for materials processing applications increased due to substantially increased sales of pulsed lasers used in marking and engraving applications and high-power lasers used in cutting and welding applications. Sales for communications applications increased due to increased sales of amplifiers in Russia. Sales for medical applications increased due to increased demand from our primary medical applications customer in the United States and sales to new customers in Europe and Asia. The decrease in sales of advanced applications was due to lower sales of high-power lasers used in government applications partially offset by increased sales for optical pumping and research and development applications.

Cost of sales and gross margin. Cost of sales increased by \$31.2 million, or 25.6%, to \$152.8 million in 2010 from \$121.6 million in 2009. Our gross margin increased to 48.9% in 2010 from 34.6% in 2009. The increase in gross margin was the result of an increase in net sales and more favorable absorption of our fixed manufacturing costs due to an increase in production volume. In addition, cost of sales benefited from a reduction in the cost per watt of our diodes and lower costs associated with greater use of internally manufactured components and accessories. Expenses related to inventory reserves and other valuation adjustments decreased by \$2.6 million to \$2.7 million, or 0.9% of sales, for the year ended December 31, 2010, as compared to \$5.3 million, or 2.9% of sales, for the year ended December 31, 2009.

Sales and marketing expense. Sales and marketing expense increased by \$3.9 million, or 26.0%, to \$19.1 million in 2010 from \$15.2 million in 2009, primarily as a result of an increase in personnel costs due to an increase in headcount and bonus accruals. As a percentage of sales, sales and marketing expense decreased to 6.4% in 2010 from 8.2% in 2009.

Research and development expense. Research and development expense increased by \$0.7 million, or 3.3%, to \$19.2 million in 2010 from \$18.5 million in 2009. This increase was primarily the result of an increase

in personnel and consultant costs, partially offset by a decrease in materials used in research and development activities. The increase in personnel costs was driven primarily by bonus accruals. Research and development activity continues to focus on enhancing the performance of our internally manufactured components, refining production processes to improve manufacturing yields, developing new products operating at different wavelengths and higher output powers and new complementary accessories used with our products. As a percentage of sales, research and development expense decreased to 6.4% in 2010 from 10.0% in 2009.

General and administrative expense. General and administrative expense increased by \$8.1 million, or 39.8%, to \$28.6 million in 2010 from \$20.5 million in 2009, primarily due to a \$3.6 million increase in personnel and contractor expenses attributable to higher bonuses and a \$2.5 million increase in accounting and legal fees related to defending a patent infringement action brought against us. As a percentage of sales, general and administrative expense decreased to 9.6% in 2010 from 11.0% in 2009.

Effect of exchange rates on sales, gross margin and operating expenses. We estimate that if exchange rates had been the same in 2010 as they were in 2009, sales in 2010 would have been \$4.5 million higher, gross margin would have been \$1.6 million higher and operating expenses in total would have been \$0.3 million higher. The measures that assume constant exchange rates between fiscal year 2010 and fiscal year 2009 are calculated using the average exchange rates for the twelve-month period ended December 31, 2009 for the respective currencies, which were Euro 1=US\$1.39, Japanese Yen 1= US\$0.01 and Russian Ruble 1=US\$0.03.

Gain (loss) on foreign exchange. We incurred a foreign exchange gain of \$0.8 million in 2010 as compared to a loss of \$1.0 million in 2009. The change was primarily attributable to the depreciation of the Euro against the U.S. Dollar and Japanese Yen.

Interest expense, net. Interest expense, net was \$1.2 million in 2010 compared to \$1.3 million in 2009.

Provision for income taxes. Provision for income taxes was \$24.9 million in 2010 compared to \$2.5 million in 2009, representing an effective tax rate of 31.4% in 2010 and 32.0% in 2009. The increase in the provision for income taxes was due to an increase in income before the provision for income taxes, while the decrease in the effective rate was due to the proportion of income earned in countries with lower enacted tax rates.

Net income. Net income attributable to IPG Photonics Corporation increased by \$48.6 million to \$54.0 million in 2010 from \$5.4 million in 2009. Net income attributable to IPG Photonics Corporation as a percentage of our net sales increased by 15.1 percentage points to 18.0% in 2010 from 2.9% in 2009 due to the factors described above.

Liquidity and Capital Resources

Our principal sources of liquidity as of December 31, 2011 consisted of cash and cash equivalents of \$180.2 million, short-term investments of \$25.5 million, unused credit lines and overdraft facilities of \$49.8 million and working capital (excluding cash and short-term investments) of \$135.1 million. This compares to cash and cash equivalents of \$147.9 million, unused credit lines and overdraft facilities of \$51.5 million and working capital (excluding cash) of \$70.2 million as of December 31, 2010. The increase in cash and cash equivalents of \$32.3 million from December 31, 2010 relates primarily to cash provided by operating activities in 2011 of \$87.4 million and a non-controlling equity investment of \$20.0 million in our Russian subsidiary by The Russian Corporation of Nanotechnologies, or Rusnano, offset by capital expenditures of \$53.0 million and purchases of short-term investments of \$25.5 million. At December 31, 2011, \$106.0 million of cash and \$18.5 million of short-term investments were held outside of the United States. Cash provided by the Rusnano investment is being used to fund the expansion of our business in Russia, including operating expenses, investments in working capital and capital expenditures. This funding is not available for use outside of Russia. Terms of this investment are more fully described below.

Our long-term debt consists primarily of a \$15.3 million secured variable-rate note, of which the current portion is \$1.3 million as of December 31, 2011. The note matures in June 2015, at which time the outstanding debt balance will be \$10.7 million. The variable interest rate was fixed by means of interest rate swap instruments. The note is secured by a mortgage on real estate and buildings that we own in Massachusetts. In January 2011, we entered into a 10-year Euro 1.4 million (\$2.0 million) mortgage obligation to fund the purchase of a new building in Italy, of which the current portion is \$0.3 million as of December 31, 2011. The interest on this mortgage obligation is fixed at 4.96% and it amortizes in full over the term of the obligation. The remaining long-term debt consists of Euro 0.2 million (\$0.3 million) of seller-provided financing relating to our purchase of Cosytronic KG in 2010.

We expect that our existing cash and marketable securities, our cash flows from operations and our existing lines of credit will be sufficient to meet our liquidity and capital needs for the foreseeable future. Our future long-term capital requirements depend on many factors including our level of sales, the impact of economic recessions on our sales levels, the timing and extent of spending to support development efforts, the expansion of our sales and marketing activities, the timing and introductions of new products, the need to ensure access to adequate manufacturing capacity and the continuing market acceptance of our products. We have made no arrangements to obtain additional financing, and there is no assurance that such additional financing, if required or desired, will be available in amounts or on terms acceptable to us, if at all.

The following table details our line-of-credit facilities as of December 31, 2011:

<u>Description</u>	<u>Available Principal</u>	<u>Interest Rate</u>	<u>Maturity</u>	<u>Security</u>
U.S. Revolving Line of Credit(1)	Up to \$35 million	LIBOR plus 1.125% to 1.625%, depending on our performance	June 2015	Unsecured
Euro Credit Facility (Germany)(2)	Euro 15.0 million (\$19.4 million)	Euribor plus 0.85% or EONIA plus 1.2%	June 2012	Unsecured, guaranteed by parent company
Euro Overdraft Facilities	Euro 1.9 million (\$2.4 million)	2.4%-6.5%	Between September 2012 and October 2012	Common pool of assets of German and Italian subsidiaries

(1) \$15.0 million of this credit facility is available to our foreign subsidiaries including those in India, China, Japan and South Korea. Total drawings at December 31, 2011 were \$4.2 million with a weighted average interest rate of 1.3%.

(2) \$4.0 million of this credit facility is available to our Russian subsidiary and \$4.0 million is available to our Italian subsidiary.

Our largest committed credit lines are with Bank of America and Deutsche Bank in the amounts of \$35.0 million and \$19.4 million, respectively, neither of which has been syndicated.

We are required to meet certain financial covenants associated with our U.S. revolving line of credit and long-term debt facilities. These covenants, tested quarterly, include a debt service coverage ratio and a funded debt to earnings before interest, taxes, depreciation and amortization, or EBITDA, ratio. The debt service coverage covenant requires that we maintain a trailing twelve month ratio of cash flow to debt service that is greater than 1.5:1. Debt service is defined as required principal and interest payments during the period. Cash flow is defined as EBITDA less unfunded capital expenditures. The funded debt to EBITDA covenant requires that the sum of all indebtedness for borrowed money on a consolidated basis be less than two times our trailing twelve-month EBITDA. We were in compliance with all such financial covenants as of and for the year ended December 31, 2011.

The financial covenants in our loan documents may cause us to not take or to delay investments and actions that we might otherwise undertake because of limits on capital expenditures and amounts that we can borrow or lease. In the event that we do not comply with any of these covenants, we would be in default under the loan agreement or loan agreements, which may result in acceleration of the debt, cross-defaults on other debt or a reduction in available liquidity, any of which could harm our results of operations and financial condition.

In December 2010, we sold a 12.5% minority interest in our Russian subsidiary, NTO IRE-Polus, to Rusnano for \$25.0 million. Terms of the investment allow Rusnano to put the investment to the Company for redemption in either cash or our stock, at the option of Rusnano, from December, 2015 to December, 2017. The Company also has certain rights to call the investment from December, 2013 to December, 2017. In addition, the Company has rights to call the investment at any time if the Company is no longer permitted to consolidate the financial results of NTO IRE-Polus under accounting principles generally accepted in the United States of America. Furthermore, if Rusnano owns less than 10.01% of NTO IRE-Polus, the Company has a call option and Rusnano has a put option for Rusnano's entire interest in NTO IRE-Polus. We are required to account for the put rights on our balance sheet as a liability or other than permanent equity. Rusnano exercised certain of its warrants to purchase an additional 10% of our Russian subsidiary in June 2011 for \$20.0 million as NTO IRE-Polus attained certain minimum revenue thresholds. This additional investment is also subject to the put and call provisions described above. As of December 31, 2011, Rusnano holds a warrant to purchase an additional 2.5% interest of NTO IRE-Polus for \$5.0 million. See Note 7 to the Consolidated Financial Statements.

Operating activities. Net cash provided by operating activities increased by \$24.0 million to \$87.4 million in 2011 from \$63.4 million in 2010, primarily resulting from:

- An increase in cash provided by net income after adding back non-cash charges of \$76.4 million in 2011 as compared to 2010 primarily related to an increase in net income and an increase in stock-based compensation expense; partially offset by
- A decrease in accrued expenses and other liabilities of \$6.8 million in 2011 compared to an increase of \$22.1 million in 2010 primarily related to customer deposits and deferred revenue, accrued compensation and accrued warranty;
- An increase in inventory of \$56.1 million in 2011 compared to an increase of inventory of \$27.0 million in 2010; and
- An increase in accounts receivable of \$23.7 million in 2011 compared to an increase of \$27.3 million in 2010.

Given our vertical integration, rigorous and time-consuming testing procedures for both internally manufactured and externally purchased components and the lead time required to manufacture components used in our finished products, the rate at which we turn inventory historically has been low when compared to our cost of sales. Also, our historical growth rates require investment in inventories to support future sales and enable us to quote short delivery times to our customers, which we believe provides us with a competitive advantage. Furthermore, if there is a disruption to the manufacturing capacity of any of our key technologies, our inventories of components should enable us to continue to build finished products for some period of time. We believe that we will continue to maintain a relatively high level of inventory compared to our cost of sales. As a result, we expect to have a significant amount of working capital invested in inventory. A reduction in our level of net sales or the rate of growth of our net sales from their current levels would mean that the rate at which we are able to convert our inventory into cash would decrease.

Investing activities. Net cash used in investing activities was \$79.1 million and \$32.6 million in 2011 and 2010, respectively. The cash used in investing activities in 2011 included \$53.0 million of capital expenditures and \$25.5 million of purchases of short-term investments as compared to \$28.3 million of capital expenditures in 2010. Capital expenditures in 2011 were related to the purchase of new buildings in Germany and Japan, the start of construction on new buildings in Russia and the purchases of manufacturing-related equipment in the United

States, Germany and Russia that allowed us to expand our manufacturing capacity. The cash used in investing activities in 2010 related to the purchase of a new building in South Korea to house a new laser application center, the acquisitions of Photonics Innovations, Inc. and Cosytronic KG and purchases of equipment primarily in the United States and Germany.

We expect to incur between \$55 million to \$60 million in capital expenditures, excluding acquisitions, in 2012. The timing and extent of any capital expenditures in and between periods can have a significant effect on our cash flows. Many of the capital expenditure projects that we undertake have long lead times and are difficult to cancel or defer to a later period.

Financing activities. Net cash provided by financing activities was \$31.9 million and \$37.8 million in 2011 and 2010, respectively. The cash provided by financing activities in 2011 was primarily related to cash received from Rusnano for an additional 10% interest in our Russian subsidiary and cash provided by the exercise of stock options. The cash provided by financing activities in 2010 was primarily related to cash received from Rusnano for a 12.5% interest in our Russian subsidiary and cash provided by the exercise of stock options.

Contractual Obligations

The following table describes our contractual obligations as of December 31, 2011 (in thousands).

	Payments Due in				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Operating lease obligations	\$12,229	\$ 3,723	\$6,099	\$ 2,382	\$ 25
Purchase obligations(1)	14,377	14,377	—	—	—
Long-term debt obligations (including interest)(2)	17,052	1,482	3,159	11,705	706
Other notes payable	322	—	—	322	—
Contingent consideration	999	331	149	519	—
Total(3)	<u>\$44,979</u>	<u>\$19,913</u>	<u>\$9,407</u>	<u>\$14,928</u>	<u>\$731</u>

(1) Represents minimum purchase commitments for property, plant and equipment and excludes short-term purchase commitments entered into in the normal course of business.

(2) Interest for long-term debt obligations was calculated including the effect of our interest rate swap. The effect of the interest rate swap, which is accounted for as a cash flow hedge, is to fix the LIBOR component of the interest rate of the underlying floating rate loan at 4.9% for the term of the debt.

(3) Excludes obligations related to ASC 740 because we are unable to provide a reasonable estimate of the timing of future payments relating to the remainder of these obligations. See Note 14 to our consolidated financial statements.

Recent Accounting Pronouncements

In October 2009, the Financial Accounting Standards Board, or the FASB, issued new accounting guidance for revenue recognition related to multiple element arrangements. This guidance established a selling price hierarchy, which allows the use of estimated selling prices to allocate arrangement consideration to deliverables in cases where neither vendor-specific objective evidence nor third-party evidence is available. The new guidance was effective for the Company prospectively for revenue arrangements entered into or materially modified beginning in the first quarter of fiscal 2011. The adoption of this accounting guidance did not have a material impact on the Company's consolidated financial statements and is not expected to have a material effect on the Company's consolidated financial statements in subsequent periods.

In May 2011, the FASB issued ASU No. 2011-04, "Fair Value Measurement: Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs." This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This ASU is effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011. Early application is not permitted. We will adopt this amended guidance for the fiscal year beginning January 1, 2012. We are evaluating the disclosure requirements related to providing quantitative information about unobservable inputs used to measure the fair value of our auction rate securities, contingent consideration liability and certain derivative instruments.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on our financial statements upon adoption.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk in the ordinary course of business, which consists primarily of interest rate risk associated with our cash and cash equivalents and our debt and foreign exchange rate risk.

Interest rate risk. Our investments have limited exposure to market risk. To minimize this risk, we maintain a portfolio of cash, cash equivalents and short-term investments, consisting primarily of bank deposits, money market funds and short-term government funds. The interest rates are variable and fluctuate with current market conditions. Because of the short-term nature of these instruments, a sudden change in market interest rates would not be expected to have a material impact on our financial condition or results of operations.

Our exposure to market risk also relates to the increase or decrease in the amount of interest expense we must pay on our bank debt and borrowings on our bank credit facilities. The interest rate on our existing bank debt is effectively fixed except for our U.S. revolving line of credit. The rates on our Euro overdraft facilities in Germany and Italy and our Japanese Yen overdraft facility are fixed for twelve-month periods. Approximately 63% of our outstanding debt had a fixed rate of interest as of December 31, 2011. We do not believe that a 10% change in market interest rates would have a material impact on our financial position or results of operations.

Exchange rates. Due to our international operations, a significant portion of our net sales, cost of sales and operating expenses are denominated in currencies other than the U.S. dollar, principally the Euro, the Japanese Yen, the Chinese Yuan and the Russian Ruble. As a result, our international operations give rise to transactional market risk associated with exchange rate movements of the U.S. dollar, the Euro, the Japanese Yen and the Russian Ruble. Gains and losses on foreign exchange transactions totaled a \$2.9 million gain in 2011 and a \$0.8 million gain in 2010. We estimate that if exchange rates had been the same as one year ago, sales in 2011 would have been \$17.2 million lower, gross margin would have been \$7.1 million lower and total operating expenses would have been \$2.0 million lower. The measures that assume constant exchange rates between fiscal year 2011 and fiscal year 2010 are calculated using the average exchange rates for the twelve-month period ended December 31, 2010 for the respective currencies, which were Euro 1=US\$1.33, Japanese Yen 1= US\$0.01 and Russian Ruble 1=US\$0.03. Management believes that the use of foreign currency financial instruments reduces the risks of certain foreign currency transactions; however, these instruments provide only limited protection. We will continue to analyze our exposure to currency exchange rate fluctuations and may engage in additional financial hedging techniques in the future to attempt to minimize the effect of these potential fluctuations. Exchange rate fluctuations may adversely affect our financial results in the future. No foreign currency derivative instruments were outstanding at December 31, 2011.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

This information is incorporated by reference from pages F-1 through F-26 of this report.

ITEM 9. *CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE*

None.

ITEM 9A. *CONTROLS AND PROCEDURES*

Evaluation of Disclosure Controls and Procedures

Under the supervision of our Chief Executive Officer and our Chief Financial Officer, our management has evaluated the effectiveness of the design and operation of our “disclosure controls and procedures” (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)), as of the end of the period covered by this Annual Report on Form 10-K (the “Evaluation Date”). Based upon that evaluation, our chief executive officer and our chief financial officer have concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms.

Management’s Annual Report on Internal Control Over Financial Reporting

Our management, including our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and its subsidiaries. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our management conducted an assessment of the effectiveness of our internal control over financial reporting as of the Evaluation Date based on criteria established in “Internal Control—Integrated Framework” issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, our management concluded that, as of the Evaluation Date, our internal control over financial reporting was effective.

Our independent registered public accounting firm, Deloitte & Touche LLP, has audited our internal control over financial reporting, as stated in their report below.

Changes in Internal Controls

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Effectiveness of Controls

Our management (including our Chief Executive Officer and Chief Financial Officer) does not expect that the disclosure controls and procedures or internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, errors and instances of fraud, if any, within the company have been or will be detected.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
IPG Photonics Corporation
Oxford, MA

We have audited the internal control over financial reporting of IPG Photonics Corporation and subsidiaries (the "Company") as of December 31, 2011, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2011, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended December 31, 2011 of the Company and our report dated February 27, 2012 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP

Boston, MA
February 27, 2012

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required hereunder is incorporated herein by reference to our definitive Proxy Statement to be filed pursuant to Regulation 14A, which Proxy Statement is anticipated to be filed with the Securities and Exchange Commission within 120 days after December 31, 2011.

ITEM 11. EXECUTIVE COMPENSATION

The information required hereunder is incorporated herein by reference to our definitive Proxy Statement to be filed pursuant to Regulation 14A, which Proxy Statement is anticipated to be filed with the Securities and Exchange Commission within 120 days after December 31, 2011.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required hereunder is incorporated herein by reference to our definitive Proxy Statement to be filed pursuant to Regulation 14A, which Proxy Statement is anticipated to be filed with the Securities and Exchange Commission within 120 days after December 31, 2011, with the exception of the information regarding securities authorized for issuance under our equity compensation plans, which is set forth in Item 5, Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities, "Information Regarding Equity Compensation Plans" and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required hereunder is incorporated herein by reference to our definitive Proxy Statement to be filed pursuant to Regulation 14A, which Proxy Statement is anticipated to be filed with the Securities and Exchange Commission within 120 days after December 31, 2011.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required hereunder is incorporated herein by reference to our definitive Proxy Statement to be filed pursuant to Regulation 14A, which Proxy Statement is anticipated to be filed with the Securities and Exchange Commission within 120 days after December 31, 2011.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Financial Statements.

See Index to Financial Statements on page F-1.

(2) Financial Statement Schedules.

All schedules are omitted because they are not applicable or the required information is shown on the financial statements or notes thereto.

(3) The exhibits listed in the "Index to Exhibits" preceding the Exhibits attached hereto are filed with this Form 10-K or incorporated by reference as set forth therein.

(b) Exhibits.

See (a)(3) above.

(c) Additional Financial Statement Schedules.

All schedules are omitted because they are not applicable or the required information is shown on the financial statements or notes thereto.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 27, 2012.

IPG PHOTONICS CORPORATION

By: /s/ Valentin P. Gapontsev

Valentin P. Gapontsev
*Chief Executive Officer and
 Chairman of the Board*

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	
<u>/s/ Valentin P. Gapontsev</u> Valentin P. Gapontsev	Chief Executive Officer, Chairman of the Board and Director (Principal Executive Officer)	February 27, 2012
<u>/s/ Timothy P.V. Mammen</u> Timothy P.V. Mammen	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 27, 2012
<u>/s/ Robert A. Blair</u> Robert A. Blair	Director	February 27, 2012
<u>/s/ Michael C. Child</u> Michael C. Child	Director	February 27, 2012
<u>/s/ Henry E. Gauthier</u> Henry E. Gauthier	Director	February 27, 2012
<u>/s/ William S. Hurley</u> William S. Hurley	Director	February 27, 2012
<u>/s/ Michael R. Kampfe</u> Michael R. Kampfe	Director	February 27, 2012
<u>/s/ William F. Krupke</u> William F. Krupke	Director	February 27, 2012
<u>/s/ Igor Samartsev</u> Igor Samartsev	Director	February 27, 2012
<u>/s/ Eugene Scherbakov</u> Eugene Scherbakov	Director	February 27, 2012

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
IPG Photonics Corporation
Oxford, Massachusetts

We have audited the accompanying consolidated balance sheets of IPG Photonics Corporation and subsidiaries (the "Company") as of December 31, 2011 and 2010, and the related consolidated statements of income, equity and comprehensive income and cash flows for each of the three years in the period ended December 31, 2011. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2011 and 2010, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2011, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2011, based on the criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2012 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
February 27, 2012

IPG PHOTONICS CORPORATION
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2011	2010
	(In thousands, except share and per share data)	
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$180,234	\$147,860
Short-term investments	25,451	—
Accounts receivable, net	75,755	55,399
Inventories, net	116,978	72,470
Prepaid income taxes and income taxes receivable	13,285	2,663
Prepaid expenses and other current assets	11,855	13,816
Deferred income taxes, net	10,899	8,593
Total current assets	434,457	300,801
DEFERRED INCOME TAXES, NET	4,830	4,489
INTANGIBLE ASSETS, NET	6,157	7,131
PROPERTY, PLANT AND EQUIPMENT, NET	155,202	120,683
OTHER ASSETS	7,486	8,751
TOTAL	\$608,132	\$441,855
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Revolving line-of-credit facilities	\$ 7,057	\$ 6,841
Current portion of long-term debt	1,613	1,333
Accounts payable	11,122	9,510
Accrued expenses and other liabilities	47,285	50,105
Deferred income taxes, net	5,405	3,387
Income taxes payable	21,230	11,594
Total current liabilities	93,712	82,770
OTHER LONG-TERM LIABILITIES	8,961	1,735
LONG-TERM DEBT, NET OF CURRENT PORTION	15,726	15,644
Total liabilities	118,399	100,149
REDEEMABLE NONCONTROLLING INTERESTS	46,123	24,903
COMMITMENTS AND CONTINGENCIES		
IPG PHOTONICS CORPORATION STOCKHOLDERS' EQUITY:		
Common stock, \$0.0001 par value, 175,000,000 shares authorized; 47,616,115 and 46,988,566 shares issued and outstanding at December 31, 2011 and 2010, respectively	5	5
Additional paid-in capital	332,585	310,218
Retained earnings	122,833	5,567
Accumulated other comprehensive (loss) income	(12,100)	810
Total IPG Photonics Corporation stockholders' equity	443,323	316,600
NONCONTROLLING INTERESTS	287	203
Total equity	443,610	316,803
TOTAL	\$608,132	\$441,855

See notes to consolidated financial statements.

IPG PHOTONICS CORPORATION
CONSOLIDATED STATEMENTS OF INCOME

	Year Ended December 31,		
	2011	2010	2009
	(In thousands, except per share data)		
NET SALES	\$474,482	\$299,256	\$185,894
COST OF SALES	217,227	152,798	121,626
GROSS PROFIT	257,255	146,458	64,268
OPERATING EXPENSES:			
Sales and marketing	21,731	19,100	15,157
Research and development	25,422	19,160	18,543
General and administrative	37,442	28,645	20,489
(Gain) loss on foreign exchange	(2,862)	(848)	1,022
Total operating expenses	81,733	66,057	55,211
OPERATING INCOME	175,522	80,401	9,057
OTHER EXPENSE, Net:			
Interest expense, net	(681)	(1,188)	(1,252)
Other (expense) income, net	(257)	39	(36)
Total other expense	(938)	(1,149)	(1,288)
INCOME BEFORE PROVISION FOR INCOME TAXES	174,584	79,252	7,769
PROVISION FOR INCOME TAXES	(53,575)	(24,900)	(2,485)
NET INCOME	121,009	54,352	5,284
LESS: NET INCOME (LOSS) ATTRIBUTABLE TO NONCONTROLLING INTERESTS	3,250	361	(135)
NET INCOME ATTRIBUTABLE TO IPG PHOTONICS CORPORATION	\$117,759	\$ 53,991	\$ 5,419
NET INCOME ATTRIBUTABLE TO IPG PHOTONICS CORPORATION PER SHARE:			
Basic	\$ 2.48	\$ 1.16	\$ 0.12
Diluted	\$ 2.41	\$ 1.13	\$ 0.12
WEIGHTED AVERAGE SHARES OUTSTANDING:			
Basic	47,365	46,424	45,489
Diluted	48,685	47,594	46,595

See notes to consolidated financial statements.

IPG PHOTONICS CORPORATION
CONSOLIDATED STATEMENTS OF EQUITY AND COMPREHENSIVE INCOME

	Year Ended December 31,					
	2011		2010		2009	
	Shares	Amount	Shares	Amount	Shares	Amount
	(In thousands, except share and per share data)					
COMMON STOCK						
Balance, beginning of year	46,988,566	\$ 5	46,076,472	\$ 5	44,965,960	\$ 4
Exercise of stock options	595,448	—	865,123	—	684,838	1
Common stock issued under employee stock purchase plan	32,101	—	46,971	—	57,528	—
Common stock issued in purchase of noncontrolling interests ("NCI")	—	—	—	—	368,146	—
Balance, end of period	47,616,115	5	46,988,566	5	46,076,472	5
ADDITIONAL PAID-IN CAPITAL						
Balance, beginning of year		310,218		293,743		283,217
Stock-based compensation		8,048		3,196		2,767
Exercise of stock options and related tax benefit from exercise		12,423		13,138		2,871
Common stock issued under employee stock purchase plan		879		603		545
Common stock issued in purchase of NCI		—		—		3,027
Sale of redeemable NCI		10,138		15,892		—
Increase redeemable NCI to initial redemption value		(9,795)		(16,285)		—
Fair value of warrant transferred to additional paid-in capital upon exercise		674		—		—
Discount on purchase of NCI		—		—		2,028
Premium on purchase of NCI		—		(69)		(712)
Balance, end of period		332,585		310,218		293,743
RETAINED EARNINGS (ACCUMULATED DEFICIT)						
Balance, beginning of year		5,567		(48,424)		(53,843)
Net income attributable to IPG Photonics Corporation		117,759		53,991		5,419
Adjustments to redemption value of redeemable NCI		(493)		—		—
Balance, end of period		122,833		5,567		(48,424)
ACCUMULATED OTHER COMPREHENSIVE INCOME						
Balance, beginning of year		810		11,106		8,794
Translation adjustments		(15,167)		(10,662)		1,962
Unrealized loss on derivatives, net of tax		(42)		(27)		350
Change in carrying value of auction rate securities		232		—		—
Attribution to NCI and redeemable NCI		2,067		393		—
Balance, end of period		(12,100)		810		11,106
TOTAL IPG PHOTONICS CORPORATION STOCKHOLDERS' EQUITY		443,323		316,600		256,430
NONCONTROLLING INTERESTS						
Balance, beginning of year		203		141		5,127
Net income (loss) attributable to NCI		94		361		(135)
Other comprehensive (loss) income attributable to NCI		(10)		—		—
Purchase of NCI		—		(92)		(3,535)
Net income attributable to redeemable NCI		—		(276)		—
Premium on purchase of NCI		—		69		712
Discount on purchase of NCI		—		—		(2,028)
Balance, end of period		287		203		141
TOTAL EQUITY		\$443,610		\$316,803		\$256,571
COMPREHENSIVE INCOME						
Net income		\$121,009		\$ 54,352		\$ 5,284
Other comprehensive income (loss):						
Translation adjustments		(15,167)		(10,662)		1,962
Unrealized loss on derivatives, net of tax		(42)		(27)		350
Change in carrying value of auction rate securities, net of tax		232		—		—
Change in cumulative translation adjustment attributable to NCI and redeemable NCI		2,067		393		—
Total comprehensive income		\$108,099		\$ 44,056		\$ 7,596

See notes to consolidated financial statements.

IPG PHOTONICS CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2011	2010	2009
	(In thousands)		
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	\$121,009	\$ 54,352	\$ 5,284
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	23,962	21,845	19,172
Deferred income taxes	(288)	401	(4,087)
Stock-based compensation	8,048	3,196	2,767
Unrealized (gains) losses on foreign currency transactions	(764)	(888)	1,023
Other	565	1,184	(36)
Provisions for inventory, warranty and bad debt	15,346	11,377	11,353
Changes in assets and liabilities that provided (used) cash:			
Accounts receivable	(23,688)	(27,308)	9,269
Inventories	(56,139)	(27,018)	5,600
Prepaid expenses and other current assets	(770)	(4,707)	679
Accounts payable	1,985	3,411	(498)
Accrued expenses and other liabilities	(6,811)	22,119	(72)
Income and other taxes payable	12,929	12,911	5,167
Tax benefit from exercise of employee stock options	(8,033)	(7,443)	(1,216)
Net cash provided by operating activities	87,351	63,432	54,405
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property, plant and equipment and intangible assets	(53,007)	(28,374)	(10,498)
Purchases of short-term investments	(25,451)	—	—
Acquisition of businesses, net of cash acquired	(750)	(4,108)	—
Other	109	(77)	(141)
Net cash used in investing activities	(79,099)	(32,559)	(10,639)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from line-of-credit facilities	10,673	13,828	19,056
Payments on line-of-credit facilities	(10,630)	(13,086)	(32,851)
Purchases of NCI	—	(92)	(508)
Principal payments on long-term borrowings	(1,432)	(1,333)	(1,344)
Sale of redeemable NCI	19,972	24,806	—
Exercise of employee stock options, issuances under employee stock purchase plan and related tax benefit from exercise	5,268	6,298	2,201
Tax benefit from exercise of employee stock options	8,033	7,443	1,216
Other	—	(100)	(50)
Net cash provided by (used in) financing activities	31,885	37,764	(12,280)
EFFECT OF CHANGES IN EXCHANGE RATES ON CASH AND CASH EQUIVALENTS	(7,763)	(3,697)	151
NET INCREASE IN CASH AND CASH EQUIVALENTS	32,374	64,940	31,637
CASH AND CASH EQUIVALENTS — Beginning of period	147,860	82,920	51,283
CASH AND CASH EQUIVALENTS — End of period	\$180,234	\$147,860	\$ 82,920
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:			
Cash paid for interest	\$ 1,089	\$ 998	\$ 1,461
Income taxes paid	\$ 39,199	\$ 7,417	\$ 4,929
Non-cash transactions:			
Demonstration units transferred from inventory to other assets	\$ 3,784	\$ 1,620	\$ 8,806
Property purchase financed with debt	\$ 1,833	\$ —	\$ —
Additions to property, plant and equipment included in accounts payable	\$ 484	\$ 407	\$ 100
Amounts related to acquisition of businesses included in accounts payable	\$ —	\$ 1,120	\$ —
Purchase of NCI in exchange for common stock	\$ —	\$ —	\$ 3,027
Inventory contributed to unconsolidated affiliate	\$ —	\$ —	\$ 247

See notes to consolidated financial statements.

IPG PHOTONICS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except share and per share data)

1. NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Business — IPG Photonics Corporation (the “Company”) is the leading developer and manufacturer of a broad line of high-performance fiber lasers, fiber amplifiers and diode lasers that are used in numerous applications in diverse end markets. Our world headquarters are located in Oxford, Massachusetts. We also have facilities and sales offices elsewhere in the United States, Europe and Asia.

Principles of Consolidation — We were incorporated as a Delaware corporation in December 1998. The accompanying financial statements include the accounts of the Company and our majority-owned subsidiaries. All intercompany accounts and transactions have been eliminated.

Use of Estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

Foreign Currency — The financial information for entities outside the United States is measured using local currencies as the functional currency. Assets and liabilities are translated into U.S. dollars at the exchange rate in effect on the respective balance sheet dates. Income and expenses are translated into U.S. dollars based on the average rate of exchange for the corresponding period. Exchange rate differences resulting from translation adjustments are accounted for directly as a component of accumulated other comprehensive (loss) income.

Cash and Cash Equivalents and Short-Term Investments — Cash and cash equivalents consist primarily of highly liquid investments, such as bank deposits, and marketable securities with original maturities of three months or less with insignificant interest rate risk and remaining maturities of three months or less at the date of acquisition. Short-term investments consist primarily of similar highly liquid investments, such as bank deposits and marketable securities with original maturities greater than three months with insignificant interest rate risk, however, the remaining maturities at the date of acquisition are greater than three months, but less than one year. As explained in Note 7, during 2011 and 2010, the Company completed the sale of a 10.0% and a 12.5% interest, respectively, in its Russian subsidiary, NTO IRE Polus (“NTO”), to an unrelated third party for \$20,000 and \$25,000, respectively. Proceeds from the sale of these interests, which included cash and cash equivalents, are designated for the expansion of NTO’s business and can be used for investments in fixed assets, working capital and operating expenses of NTO, but are not available for use for other purposes. As of December 31, 2011, the remaining unused proceeds of \$28,212 consisted of \$10,719 in cash and cash equivalents and \$17,493 in short-term investments.

Inventories — Inventories are stated at the lower of cost or market on a first-in, first-out basis. Inventories include parts and components that may be specialized in nature and subject to rapid obsolescence. We periodically review the quantities and carrying values of inventories to assess whether the inventories are recoverable. Because of our vertical integration, a significant or sudden decrease in sales activity could result in a significant change in the estimates of excess or obsolete inventory valuation. The costs associated with provisions for excess quantities, technological obsolescence, or component rejection are charged to cost of sales as incurred.

Property, Plant and Equipment — Property, plant and equipment are stated at cost, less accumulated depreciation. Depreciation is determined using the straight-line method based on the estimated useful lives of the

IPG PHOTONICS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(In thousands, except share and per share data)

related assets. In the case of leasehold improvements, the estimated useful lives of the related assets do not exceed the remaining terms of the corresponding leases. The following table presents the assigned economic useful lives of property, plant and equipment:

<u>Category</u>	<u>Economic Useful Life</u>
Buildings	30 years
Machinery and equipment	3-5 years
Office furniture and fixtures	3-5 years

Expenditures for maintenance and repairs are charged to operations. Interest expense associated with significant capital projects is capitalized as a cost of the project. We capitalized \$46, \$18 and \$75 of interest expense in 2011, 2010 and 2009, respectively.

Long-Lived Assets — Long-lived assets, which consist primarily of property, plant, and equipment, are reviewed by management for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. In cases in which undiscounted expected future cash flows are less than the carrying value, an impairment loss is recorded equal to the amount by which the carrying value exceeds the fair value of assets. No impairment losses have been recorded during the periods presented.

Included in other long-term assets is certain demonstration equipment. The demonstration equipment and intangible assets are amortized over the respective estimated economic lives, generally 3 years for demonstration equipment and 5-10 years for intangible assets. The carrying value of the demonstration equipment totaled \$3,799 and \$4,619 at December 31, 2011 and 2010, respectively. Amortization expense of demonstration equipment for the years ended December 31, 2011, 2010 and 2009, was \$2,920, \$3,690 and \$3,617, respectively.

Intangible Assets — Intangible assets consist of the following:

	<u>December 31, 2011</u>				<u>December 31, 2010</u>			
	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Amount</u>	<u>Weighted-Average Lives</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Carrying Amount</u>	<u>Weighted-Average Lives</u>
Amortizable intangible assets								
Patents	\$ 4,664	\$(3,278)	\$1,386	6 Years	\$ 4,664	\$(2,361)	\$2,303	6 Years
Customer relationships	3,567	(1,619)	1,948	5 Years	3,633	(998)	2,635	5 Years
Production know-how	2,477	(547)	1,930	9 Years	2,518	(335)	2,183	9 Years
Technology license	1,155	(262)	893	4 Years	10	—	10	
	<u>\$11,863</u>	<u>\$(5,706)</u>	<u>\$6,157</u>		<u>\$10,825</u>	<u>\$(3,694)</u>	<u>\$7,131</u>	

The Company completed an acquisition through its Italian subsidiary in the first quarter of 2011. Consideration included cash payments aggregating \$900 and contingent consideration with an aggregate fair value of \$282. Net assets acquired primarily consisted of intangible assets related to software aggregating \$1,182.

The Company completed two acquisitions in 2010, one in the U.S. in the first quarter and one in Germany in the second quarter. Amounts paid include cash payments aggregating \$4,508 and contingent consideration and seller provided financing with an aggregate fair value of \$969. Net assets acquired primarily consisted of intangible assets (patents, customer relationships, and production know-how with weighted-average estimated useful lives of 10 years, 5 years and 9 years, respectively) aggregating \$5,218.

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(In thousands, except share and per share data)

Amortization expense of intangible assets for the years ended December 31, 2011, 2010 and 2009, was \$2,246, \$1,772 and \$1,185, respectively.

The estimated future amortization expense for intangibles as of December 31, 2011 is as follows:

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Thereafter</u>	<u>Total</u>
\$1,958	\$1,342	\$1,168	\$487	\$278	\$924	\$6,157

Revenue Recognition — We recognize revenue when four basic criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed and determinable; and (4) collectability is reasonably assured. Revenue from the sale of our products is generally recognized upon shipment, provided that the other revenue recognition criteria have been met. We have no obligation to provide upgrades, enhancements or customer support subsequent to the sale, other than warranty.

Revenue from orders with multiple deliverables is divided into separate units of accounting when certain criteria are met. The consideration for the arrangement is then allocated to the separate units of accounting based on their relative fair values. We defer revenue on multiple element arrangements if the fair values of the undelivered elements are not known or if customer acceptance is contingent on delivery of specified items or performance conditions that cannot be satisfactorily tested prior to shipment or if we have not met such conditions in the past. Applicable revenue recognition criteria are then applied separately for each separate unit of accounting.

Returns and customer credits are infrequent and are recorded as a reduction to revenue. Rights of return are generally not included in sales arrangements. Generally, we receive a customer purchase order as evidence of an arrangement and product shipment terms are free on board (F.O.B.) shipping point. Periodically, our revenue arrangements include customer acceptance clauses. If an acceptance clause defines a performance requirement in a process or application that we cannot effectively test prior to delivery or that has not been accepted previously, we defer recognition of revenue until satisfaction of the performance requirement has been proven.

Allowance for Doubtful Accounts — We maintain an allowance for doubtful accounts to provide for the estimated amount of accounts receivable that will not be collected. The allowance is based upon an assessment of customer creditworthiness, historical payment experience and the age of outstanding receivables.

Activity related to the allowance for doubtful accounts was as follows:

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Balance at January 1	\$ 2,143	\$1,256	\$ 1,241
Provision for bad debts	2,505	1,951	1,777
Uncollectable accounts recovered or written off	(3,033)	(999)	(1,795)
Foreign currency translation	(10)	(65)	33
Balance at December 31	<u>\$ 1,605</u>	<u>\$2,143</u>	<u>\$ 1,256</u>

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued) (In thousands, except share and per share data)

Warranties — In general, our products carry a warranty against defect for a period of one to three years, depending upon the product type and customer negotiations. The expected cost associated with these warranty obligations is recorded when the revenue is recognized. The warranty accrual is reflected in accrued expenses and other liabilities in the consolidated balance sheets. Activity related to the warranty accrual was as follows:

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Balance at January 1	\$ 6,917	\$ 3,886	\$ 3,223
Provision for warranty accrual	6,701	6,681	2,962
Warranty claims and other reductions	(4,692)	(3,476)	(2,322)
Foreign currency translation	(295)	(174)	23
Balance at December 31	<u>\$ 8,631</u>	<u>\$ 6,917</u>	<u>\$ 3,886</u>

Accrued warranty reported in the accompanying consolidated financial statements as of December 31, 2011 consists of \$6,186 in accrued expenses and other liabilities and \$2,445 in other long-term liabilities.

Advertising Expense — The cost of advertising is expensed as incurred. We conduct substantially all of our sales and marketing efforts through trade shows, professional and technical conferences, direct sales and our website. Our advertising costs were not material for the periods presented.

Research and Development — Research and development costs are expensed as incurred.

Income Taxes — Deferred tax assets and liabilities are recognized for the future tax consequences of temporary differences between the financial statement carrying amounts and tax bases of assets and liabilities and net operating loss carryforwards and credits using enacted rates in effect when those differences are expected to reverse. Valuation allowances are provided against deferred tax assets that are not deemed to be recoverable. We recognize tax positions that are more likely than not to be sustained upon examination by relevant tax authorities. The tax positions are measured at the greatest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement.

We provide reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. The reserves are based on a determination of whether and how much of a tax benefit taken by us in our tax filings or positions is more likely than not to be realized following resolution of uncertainties related to the tax benefit, assuming that the matter in question will be raised by the tax authorities.

Concentration of Credit Risk — Financial instruments that potentially subject us to credit risk consist primarily of cash and cash equivalents, short-term investments, marketable securities and accounts receivable. We maintain substantially all of our cash, short-term investments and marketable securities in six financial institutions, which are believed to be high-credit quality financial institutions. We grant credit to customers in the ordinary course of business and provide a reserve for potential credit losses. Such losses historically have been within management's expectations (see discussion related to significant customers in Note 15).

Fair Value of Financial Instruments — Our financial instruments consist of accounts receivable, cash equivalents, short-term investments, auction rate securities, accounts payable, drawings on revolving lines of credit, long-term debt and certain derivative instruments.

The valuation techniques used to measure fair value are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions. These two types of inputs create the following fair value hierarchy: Level 1, defined

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(In thousands, except share and per share data)

as observable inputs such as quoted prices for identical instruments in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs for which little or no market data exists, therefore requiring an entity to develop its own assumptions.

The carrying amounts of accounts receivable, accounts payable and drawings on revolving lines of credit are considered reasonable estimates of their fair market value, due to the short maturity of these instruments or as a result of the competitive market interest rates, which have been negotiated.

The following table presents information about our assets and liabilities measured at fair value:

		Fair Value Measurements at December 31, 2011		
	Total	Level 1	Level 2	Level 3
Assets				
Money market funds	\$ 18,466	\$ 18,466	\$ —	\$ —
Treasury bills	58,994	58,994	—	—
Time deposits	33,513	33,513	—	—
Auction rate securities	1,104	—	—	1,104
Total assets	<u><u>\$112,077</u></u>	<u><u>\$110,973</u></u>	<u><u>\$ —</u></u>	<u><u>\$1,104</u></u>
Liabilities				
Contingent purchase consideration	\$ 999	\$ —	\$ —	\$ 999
Warrant	77	—	—	77
Interest rate swaps	1,223	—	1,223	—
Total liabilities	<u><u>\$ 2,299</u></u>	<u><u>\$ —</u></u>	<u><u>\$1,223</u></u>	<u><u>\$1,076</u></u>

		Fair Value Measurements at December 31, 2010		
	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Assets				
Money market funds	\$ 4,223	\$ 4,223	\$ —	\$ —
Treasury bills	55,679	55,679	—	—
Auction rate securities	921	—	—	921
Total assets	<u>\$60,823</u>	<u>\$59,902</u>	<u>\$ —</u>	<u>\$921</u>
Liabilities				
Contingent purchase consideration	\$ 685	\$ —	\$ —	\$685
Warrant	180	—	—	180
Interest rate swaps	1,156	—	1,156	—
Total liabilities	<u>\$ 2,021</u>	<u>\$ —</u>	<u>\$1,156</u>	<u>\$865</u>

Money market funds, treasury bills and time deposits are included in cash and cash equivalents and short-term investments and auction rate securities are included in other long-term assets.

The interest rate swaps are designated as cash flow hedges and were based on quoted market prices or pricing models using current market rates. Fair value at December 31, 2011 for the auction rate securities considered prices observed in inactive secondary markets for the securities held by the Company.

IPG PHOTONICS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(In thousands, except share and per share data)

We completed the acquisition of certain assets of Multilane Technology during 2011, and the acquisitions of Photonics Innovations, Inc., and Cosytronic, KG during 2010. The fair value of the accrued contingent consideration incurred during these acquisitions was determined using an income approach at the acquisition date and reporting date. That approach is based on significant inputs that are not observable in the market. Key assumptions include assessing the probability of meeting certain milestones required to earn the contingent consideration. As of December 31, 2011, the Company has accrued a liability of \$999 for the estimated fair value of contingent consideration expected to be payable upon the acquired companies reaching specific performance metrics over the next four years of operation. As of December 31, 2011, the ranges of outcomes and key assumptions have not changed materially.

In December 2010 we issued warrants in conjunction with the sale of a redeemable noncontrolling interest more fully described in Note 7. We valued these warrants and the embedded put and call options attached to them by first determining the underlying equity value of our Russian subsidiary using a discounted cash flow model and then, using appropriate inputs for expected volatility, revenue multiple and credit spread, utilized a binomial tree model followed by a Monte Carlo simulation to estimate the value of the embedded derivatives.

The assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) are auction rate securities, contingent consideration and warrants:

	<u>2011</u>	<u>2010</u>
Auction Rate Securities		
Balance, January 1	\$ 921	\$1,284
Period transactions	—	—
Change in fair value	183	(338)
Redeemed by issuers at par	—	(25)
Balance, December 31	<u>\$1,104</u>	<u>\$ 921</u>
Contingent Purchase Consideration		
Balance, January 1	\$ 685	\$ —
Period transactions	282	675
Change in fair value	32	10
Balance, December 31	<u>\$ 999</u>	<u>\$ 685</u>
Warrant		
Balance, January 1	\$ 180	\$ —
Period transactions	(674)	180
Change in fair value	571	—
Balance, December 31	<u>\$ 77</u>	<u>\$ 180</u>

The auction rate securities are considered available-for-sale securities. They had a cost basis of \$1,450 at December 31, 2011 and 2010. Other-than-temporary impairments recorded in other (expense) income, net were \$49 and \$338 in 2011 and 2010, respectively. No other-than-temporary impairments were recorded in 2009.

Comprehensive Income — Comprehensive income includes charges and credits to equity that are not the result of transactions with stockholders. Included within other comprehensive income is the cumulative translation adjustment and unrealized gains or losses on derivatives. These adjustments are accumulated within the consolidated statements of equity.

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(In thousands, except share and per share data)

Total components of accumulated other comprehensive income (loss) were as follows:

	December 31,	
	2011	2010
Foreign currency translation adjustment	\$(14,027)	\$1,533
Unrealized loss on derivatives, net of tax of \$458 and \$433	(765)	(723)
Change in carrying value of auction rate securities	232	—
Attribution to NCI and redeemable NCI	2,460	—
Accumulated other comprehensive income (loss)	<u>\$(12,100)</u>	<u>\$ 810</u>

Derivative Instruments — Our primary market exposures are to interest rates and foreign exchange rates. We may use certain derivative financial instruments to help manage these exposures. We execute these instruments with financial institutions we judge to be credit-worthy. We do not hold or issue derivative financial instruments for trading or speculative purposes.

We recognize all derivative financial instruments as either assets or liabilities at fair value in the consolidated balance sheet. We have used foreign currency forward contracts as cash flow hedges of forecasted intercompany settlements denominated in foreign currencies of major industrial countries. We have no outstanding foreign currency forward contracts. We have two interest rate swaps that are classified as cash flow hedges of our variable rate debt.

Cash Flow Hedges — Our cash flow hedges consist of interest rate swaps under which we agree to pay fixed rates of interest. All of our derivatives are accounted for as hedging instruments. The fair value amounts in the consolidated balance sheets at December 31, 2011 and 2010 were:

	Notional Amounts ¹		Other Assets		Other Long-Term Liabilities	
	December 31,		December 31,		December 31,	
	2011	2010	2011	2010	2011	2010
Interest rate swap(s)	\$15,333	\$16,666	\$—	\$—	\$1,223	\$1,156
Total	<u>\$15,333</u>	<u>\$16,666</u>	<u>\$—</u>	<u>\$—</u>	<u>\$1,223</u>	<u>\$1,156</u>

(1) Notional amounts represent the gross contract/notional amount of the derivatives outstanding.

The derivative gains and losses in the consolidated statements of income for the years ended December 31, 2011 and 2010, related to our interest rate swap contracts were as follows:

	Year Ended December 31,		
	2011	2010	2009
Effective portion recognized in other comprehensive income (loss), pretax:			
Interest rate swap	\$ 562	\$ 649	\$1,236
Effective portion reclassified from other comprehensive income (loss) to interest expense, pretax:			
Interest rate swap	\$(629)	\$(679)	\$(684)
Ineffective portion recognized in income:			
Interest rate swap	\$ —	\$ —	\$ —

IPG PHOTONICS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(In thousands, except share and per share data)

We made no adjustments to the fair value of this derivative as a result of evaluating counterparty risk.

Business Segment Information — We operate in one segment which involves the design, development, production and distribution of fiber lasers, fiber amplifiers and related optical components. We have a single, company-wide management team that administers all properties as a whole rather than as discrete operating segments. The chief decision maker, who is our Chief Executive Officer, measures financial performance as a single enterprise and not on legal entity or end-market basis. Throughout the year, the chief decision maker allocates capital resources on a project-by-project basis across our entire asset base to maximize profitability without regard to legal entity or end-market basis. We operate in a number of countries throughout the world in a variety of product lines. Information regarding geographic financial information and product lines is provided in Note 15.

Recent Accounting Pronouncements — In May 2011, the Financial Accounting Standards Board (the “FASB”) issued ASU No. 2011-04, “Fair Value Measurement: Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs.” This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This ASU is effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011. Early application is not permitted. We will adopt this amended guidance for the fiscal year beginning January 1, 2012. We are evaluating the disclosure requirements related to providing quantitative information about unobservable inputs used to measure the fair value of our auction rate securities, contingent consideration liability and certain derivative instruments.

In October 2009, the FASB issued new accounting guidance for revenue recognition related to multiple element arrangements. This guidance established a selling price hierarchy, which allows the use of estimated selling prices to allocate arrangement consideration to deliverables in cases where neither vendor-specific objective evidence nor third-party evidence is available. The new guidance was effective for the Company prospectively for revenue arrangements entered into or materially modified beginning in the first quarter of fiscal 2011. The adoption of this accounting guidance did not have a material impact on the Company’s consolidated financial statements and is not expected to have a material effect on the Company’s consolidated financial statements in subsequent periods.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on our financial statements upon adoption.

Subsequent Events — We have considered the impact of subsequent events through the filing date of these financial statements as part of Form 10-K.

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(In thousands, except share and per share data)

2. STOCK-BASED COMPENSATION

Stock-based compensation is included in the following financial statement captions:

	Year Ended December 31,		
	2011	2010	2009
Cost of sales	\$ 1,731	\$ 727	\$ 578
Sales and marketing	1,503	801	727
Research and development	1,036	446	344
General and administrative	3,778	1,222	1,118
Total stock-based compensation	8,048	3,196	2,767
Tax benefit recognized	(2,551)	(973)	(792)
Net stock-based compensation	<u>\$ 5,497</u>	<u>\$2,223</u>	<u>\$1,975</u>

Compensation cost for all share-based payment awards is based on the estimated grant-date fair value. We allocate and record stock-based compensation expense on a straight-line basis over the requisite service period.

We calculate the fair value of stock option grants using the Black-Scholes option pricing model. Determining the appropriate fair value model and calculating the fair value of stock-based payment awards require the use of highly subjective assumptions, including the expected life of the stock-based payment awards and stock price volatility. The assumptions used in calculating the fair value of stock-based payment awards represent management's best estimates, but the estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future. The weighted average assumptions used in the Black-Scholes model or the calculation of compensation were as follows for the years ended December 31.

	2011	2010	2009
Expected term	3.4-6.9 years	2.9-5.9 years	1.74-7.10 years
Volatility	46%-56%	42%-48%	46%-65%
Risk free rate of return	0.48%-2.82%	0.34%-2.68%	0.56%-2.78%
Dividend yield	0%	0%	0%
Forfeiture rate	0%-6.26%	0%-5.0%	2%-6.6%

Incentive Plans — In April 2000, our board of directors adopted the 2000 Incentive Compensation Plan, or 2000 plan, and in February 2006, our board of directors adopted the 2006 Incentive Compensation Plan, or 2006 plan, which provide for the issuance of stock options and other stock and non-stock based awards to our directors, employees, consultants and advisors. We reserved 5,833,333 shares under the 2000 plan and 4,000,000 shares under the 2006 plan for the issuance of awards under the plans. During 2011, we reserved an additional 6,084,273 shares under the 2006 plan. In June 2006, our board of directors adopted the Non-Employee Directors Stock Plan (the "Directors Plan"). Only non-employee directors are eligible to receive awards under the Directors Plan. We reserved 486,660 shares for issuance under the Directors Plan. Under the three plans, we may grant nonstatutory stock options at an exercise price at least equal to the fair value of our common stock on the date of grant, unless the board of directors or compensation committee determines otherwise on the date of grant. Incentive stock options may be granted under the 2000 plan and the 2006 plan at exercise prices equal to or exceeding the fair value of the common stock on the date of grant. We may also grant restricted stock, restricted stock units and other equity-based awards. Incentive awards generally become exercisable over periods of one to five years and expire seven to ten years from the date of the grant. The awards under the 2000 plan and the

IPG PHOTONICS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
(In thousands, except share and per share data)

2006 plan may become exercisable earlier upon the occurrence of certain change of control events at the election of the board of directors or compensation committee, and all awards under the Directors Plan automatically become exercisable upon a change of control. All shares issued under the stock option plans are registered shares newly issued by us. At December 31, 2011, 7,009,548 shares were available for future grant under the three option plans.

A summary of option activity is presented below:

	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Life (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding — January 1, 2011	2,736,443	\$10.33		
Granted	601,214	56.82		
Exercised	(595,448)	7.58		
Forfeited	(17,637)	23.90		
Outstanding — December 31, 2011 ...	<u>2,724,572</u>	<u>\$20.78</u>	<u>6.92</u>	<u>\$50,106</u>
Vested or expected to vest —				
December 31, 2011	2,502,812	<u>\$18.24</u>	6.76	\$48,255
Exercisable — December 31, 2011	1,051,503	<u>\$ 7.51</u>	4.91	\$27,722

The intrinsic value of the options exercised during the years ended December 31, 2011, 2010 and 2009, was \$29,265, \$13,431 and \$7,656, respectively.

The weighted-average grant fair value for options granted during the years ended December 31, 2011, 2010 and 2009, was \$27.60, \$7.66 and \$3.94, respectively.

The total compensation cost related to nonvested awards not yet recorded at December 31, 2011 was \$15,793, which is expected to be recognized over a weighted average of 3.31 years.

The fair value of awards vested during the year ended December 31, 2011 was \$2,505.

3. INVENTORIES

Inventories consist of the following:

	December 31,	
	2011	2010
Components and raw materials	\$ 41,107	\$25,126
Work-in-process	40,380	24,392
Finished goods	35,491	22,952
Total	<u>\$116,978</u>	<u>\$72,470</u>

We recorded inventory provisions totaling \$6,139, \$2,745 and \$5,259 in 2011, 2010 and 2009, respectively. These provisions were recorded as a result of uncertainties related to the recoverability of the value of inventories due to technological changes and excess quantities. These provisions are reported as a reduction to components and raw materials and finished goods.

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(In thousands, except share and per share data)

4. PROPERTY, PLANT AND EQUIPMENT

Property, plant, and equipment consist of the following:

	December 31,	
	2011	2010
Land	\$ 16,168	\$ 12,380
Buildings	96,556	87,492
Machinery and equipment	110,331	92,363
Office furniture and fixtures	18,268	16,607
Construction-in-progress	20,953	5,392
Total property, plant and equipment	262,276	214,234
Accumulated depreciation	(107,074)	(93,551)
Total property, plant and equipment — net	<u>\$ 155,202</u>	<u>\$ 120,683</u>

We recorded depreciation expense of \$18,796, \$16,212 and \$14,296 in 2011, 2010 and 2009, respectively.

5. ACCRUED EXPENSES AND OTHER LIABILITIES

Accrued expenses and other liabilities consist of the following:

	December 31,	
	2011	2010
Accrued compensation	\$21,453	\$16,065
Customer deposits and deferred revenue	15,317	20,685
Current portion of accrued warranty	6,186	6,917
Other	4,329	6,438
Total	<u>\$47,285</u>	<u>\$50,105</u>

6. FINANCING ARRANGEMENTS

Our existing borrowings under financing arrangements consist of the following:

	December 31,	
	2011	2010
Revolving Line of Credit Facilities:		
Other European Facilities	\$ 393	\$ 1,418
Euro Line of Credit	2,421	464
Foreign subsidiary drawings on U.S. Line of Credit	4,243	4,959
Total	<u>\$ 7,057</u>	<u>\$ 6,841</u>
Term Debt:		
U.S. Long-Term Note	\$15,333	\$16,666
Other notes payable	2,006	311
Less: current portion	(1,613)	(1,333)
Total long-term debt	<u>\$15,726</u>	<u>\$15,644</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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Revolving Line of Credit Facilities:

U.S. Line of Credit — We maintain an unsecured revolving line of credit with available principal of up to \$35,000 expiring in June 2015. The line of credit bears interest at a variable rate of LIBOR plus 1.125% to 1.625% depending on our financial performance (1.41% at December 31, 2011). \$15,000 of this credit facility is available to our foreign subsidiaries including those in India, China, Japan and South Korea. Total drawings at December 31, 2011 were \$4,243 with a weighted average interest rate of 1.3%. At December 31, 2011, the remaining availability under the U.S. Line of Credit totaled \$30,757.

Euro Line of Credit — We maintain an unsecured revolving line of credit with a principal amount of Euro 15,000 (approximately \$19,423 at December 31, 2011) that expires in June 2012. The credit facility bears interest at various rates based upon the type of loan. \$4,000 of this credit facility is available to our Russian subsidiary and \$4,000 is available to our Italian subsidiary. Total drawings at December 31, 2011 were \$2,421 with an interest rate of 2.2%.

Euro Overdraft Facilities — We maintain a syndicated overdraft facility with available principal of Euro 850 (approximately \$1,101 at December 31, 2011) that does not have an expiration date. This facility bears interest at market rates that vary depending upon the bank within the syndicate that advances the principal outstanding (6.5% at December 31, 2011). This facility is collateralized by a common pool of the assets of our German subsidiary, IPG Laser GmbH.

Other European Facilities — We maintain two Euro credit lines in Italy with aggregate available principal of Euro 1,000 (approximately \$1,295 as of December 31, 2011) which bear interest at 2.4% and expire in September and October 2012. Total drawings at December 31, 2011 were \$393. At December 31, 2011, the aggregate remaining availability under these lines was \$902. These facilities are collateralized by a common pool of the assets of our Italian subsidiary, IPG Photonics (Italy) S.r.l. ("IPG Italy").

Term Debt:

U.S. Long-Term Note — In 2010, we extended the maturity of the U.S. Long-Term Note from August 2013 to June 2015. Outstanding principal under the U.S. Long-Term Note bears interest at LIBOR plus 0.9% to 1.3%, depending on certain financial ratios and requires monthly principal payments of \$111 and interest through June 2015, at which time the remaining principal is payable. This note is collateralized by a mortgage on the real estate and building in Massachusetts, housing our U.S. operations. We entered into an interest rate swap instrument which converts the variable LIBOR rate on the original term note to a fixed rate of 5.0%. For the extended term from August 2013 to June 2015, we entered into a separate interest rate swap instrument which converts the variable LIBOR rate to a fixed rate of 3.47%. Changes in fair value of the swaps are included in "Accumulated Other Comprehensive (loss) Income". The unrealized loss on the swap will be recognized into income over the term of the swap as a charge to interest expense.

We are required to meet certain financial covenants associated with our U.S. Line of Credit and U.S. Long-Term Note. These covenants, tested quarterly, include a debt service coverage ratio and a funded debt to earnings before interest, taxes, depreciation and amortization ("EBITDA") ratio. The debt service coverage covenant requires us to maintain a trailing twelve month ratio of cash flow to debt service that is greater than 1.5:1. Debt service is defined as required principal and interest payments during the period. Cash flow is defined as EBITDA less unfunded capital expenditures. For trailing twelve month periods until June 2010, up to \$15,000 of our capital expenditures are treated as being funded from the proceeds of our initial public offering. The funded debt to EBITDA covenant requires that the sum of all indebtedness for borrowed money on a consolidated basis shall be less than two times our trailing twelve months EBITDA.

IPG PHOTONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

(In thousands, except share and per share data)

7. REDEEMABLE NONCONTROLLING INTERESTS, STOCKHOLDERS' EQUITY AND NONCONTROLLING INTERESTS

Redeemable Noncontrolling Interests — Redeemable noncontrolling interests reported in the accompanying consolidated financial statements consisted of 22.5% and 12.5% of the Company's Russian subsidiary, NTO IRE-Polus ("NTO"), as of December 31, 2011 and 2010, respectively.

	Redeemable Noncontrolling Interest	
	2011	2010
Balance at January 1	\$24,903	\$ —
Initial interest in book value of subsidiary	10,177	8,342
Increase to the initial redemption value	9,795	16,285
Net income attributable to redeemable NCI	3,156	276
Adjustments to redemption value	493	—
Other comprehensive (loss) attributable to redeemable NCI	(2,401)	—
Balance at December 31	<u>\$46,123</u>	<u>\$24,903</u>

In December 2010, the Company entered into an investment agreement with an unrelated third party, The Russian Corporation for Nanotechnology ("Rusnano") (the "Investment Agreement"). Under the Investment Agreement, Rusnano acquired a 12.5% noncontrolling interest ("NCI") in NTO and warrants to purchase up to an additional 12.5% of NTO in three tranches (two additional 5% interests for a purchase price of \$10,000 each, and a 2.5% interest for \$5,000) if certain sales targets are achieved before December 2015. In June 2011, Rusnano exercised their warrants to purchase an additional 10% of NTO, as sales targets had been achieved related to the first two tranches. Rusnano invested \$25,000 and \$20,000 in NTO in December 2010 and June 2011, respectively.

In connection with the Investment Agreement, the Company and Rusnano entered into an option agreement (the "Option Agreement") granting the Company the right to buy back, after the third and before the seventh anniversary of the Option Agreement, Rusnano's ownership stake in NTO at the original purchase price under the Investment Agreement plus interest at 8-10% per annum. Rusnano obtained the right to sell to the Company, after the fifth and before the seventh anniversary of the Option Agreement, Rusnano's ownership stake in NTO at the original purchase price plus interest at 4% per annum (the "Put"). Any shares purchased under the warrants in the Investment Agreement are also subject to the Option Agreement.

Due to the Put, the NCI in NTO held by Rusnano (the "Rusnano NCI") has been classified as temporary equity and reported as a Redeemable Noncontrolling Interest on our consolidated balance sheet. The initial net proceeds, \$25,000 less transaction expenses of \$194, were allocated first to the fair value of the warrants (\$180) and then to the initial carrying value of the Rusnano NCI. The subsequent carrying value of the Rusnano NCI is the higher of (1) the initial carrying amount (plus any subsequent investments in NTO under the warrants), increased or decreased by the NCI's share of NTO's net income or loss, the NCI's share of NTO's other comprehensive income (loss), and dividends or (2) the redemption value. The redemption value is the initial carrying value of the Rusnano NCI plus the accretion of the discount created by warrant and transaction expenses using the interest method to the fifth anniversary of the agreement (the earliest redemption date) plus any subsequent investments in NTO under the warrants plus interest on the initial and any subsequent investments under the warrants at an annual rate of 4%.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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After allocating net income and other comprehensive income to the Rusnano NCI, the carrying amount of the redeemable NCI was less than the accreted redemption value at December 31, 2011. Therefore, the Company recorded an adjustment of \$493 to increase the carrying value of the redeemable NCI and charged retained earnings. The charge is a non-fair value adjustment and is therefore also reflected in the calculation of earnings per share.

Authorized Capital — We have authorized capital stock consisting of 175,000,000 shares of common stock, par value \$0.0001 per share, and 5,000,000 shares of preferred stock, par value \$0.0001 per share. There are no shares of preferred stock outstanding.

Noncontrolling Interests — Noncontrolling interests reported in the accompanying consolidated financial statements as of December 31, 2011 consist of the 10% of IPG Photonics (Korea) Ltd. ("IPG Korea") held by the management of IPG Korea. In January 2012, we purchased the entire noncontrolling interest from the other stockholder of IPG Korea.

For the years ended December 31, 2011 and 2010, the net income attributable to NCI of \$3,250 and \$361 includes amounts related to the Rusnano NCI of \$3,156 and \$276, respectively. The net income attributable to NCI classified as permanent equity totaled \$94 and \$85 in 2011 and 2010, respectively.

Prior to the Rusnano investment, we purchased the interests of certain noncontrolling stockholders of NTO. In 2009, we purchased a 34% interest held by our Chief Executive Officer and certain other Company employees for \$2,644; and in 2010, we purchased the remaining 0.1% interest for \$92.

8. RELATED-PARTY TRANSACTIONS

Until July 2010, we subleased office space in the United Kingdom from an entity controlled by our Chief Executive Officer and reimbursed the entity for general and administrative expenses. The costs related to the lease and services totaled \$46 and \$107 for 2010 and 2009, respectively.

We paid \$103, \$182 and \$187 to the father of our chief financial officer in 2011, 2010 and 2009, respectively. The amounts included payments for consulting services, commissions and reimbursement of expenses.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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9. NET INCOME ATTRIBUTABLE TO IPG PHOTONICS CORPORATION PER SHARE

The following table sets forth the computation of basic and diluted net income attributable to IPG Photonics Corporation per share:

	Year Ended December 31,		
	2011	2010	2009
Net income attributable to IPG Photonics Corporation	\$ 117,759	\$ 53,991	\$ 5,419
Adjustments to redemption value of redeemable noncontrolling interests	(493)	—	—
Net income attributable to common stockholders	117,266	53,991	5,419
Weighted average shares	47,365,451	46,423,543	45,488,914
Dilutive effect of common stock equivalents	1,319,260	1,169,991	1,106,133
Diluted weighted average common shares	48,684,711	47,593,534	46,595,047
Basic net income attributable to IPG Photonics Corporation per share	\$ 2.49	\$ 1.16	\$ 0.12
Adjustments to redemption value of redeemable noncontrolling interests	(0.01)	—	—
Basic net income attributable to common stockholders	\$ 2.48	\$ 1.16	\$ 0.12
Diluted net income attributable to IPG Photonics Corporation per share	\$ 2.42	\$ 1.13	\$ 0.12
Adjustments to redemption value of redeemable noncontrolling interests	(0.01)	—	—
Diluted net income attributable to common stockholders	\$ 2.41	\$ 1.13	\$ 0.12

The computation of diluted weighted average common shares excludes 338,679, 35,185 and 343,174 shares for the years ended December 31, 2011, 2010 and 2009, respectively, because the effect on net income attributable to IPG Photonics Corporation per share would have been anti-dilutive.

10. COMMITMENTS AND CONTINGENCIES

Operating Leases — We lease certain facilities under cancelable and noncancelable operating lease agreements which expire through January 2014. In addition, we lease capital equipment under operating leases. Rent expense for the years ended December 31, 2011, 2010 and 2009, totaled \$921, \$713, and \$794, respectively.

Commitments under the noncancelable lease agreements as of December 31, 2011 are as follows:

Years Ending December 31	Facilities	Equipment	Total
2012	\$2,121	\$1,602	\$ 3,723
2013	2,177	1,209	3,386
2014	2,174	539	2,713
2015	2,279	62	2,341
2016	24	17	41
Thereafter	2	23	25
Total	\$8,777	\$3,452	\$12,229

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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Employment Agreements — We have entered into employment agreements with certain members of senior management. The terms of these agreements are up to two years and include noncompete and nondisclosure provisions, as well as provisions for defined severance for terminations of employment under certain conditions and change of control of the Company.

Contractual Obligations — We have entered into various purchase obligations that include agreements to purchase raw materials and equipment. Obligations under these agreements were \$14,377 as of December 31, 2011.

11. LEGAL PROCEEDINGS

In November 2006, IMRA America, Inc. filed an action against us alleging that certain products we produce infringe one U.S. patent allegedly owned by IMRA America. IMRA America alleged willful infringement and sought damages, including for alleged lost profits, of at least \$26,000 through June 2011, treble damages, attorneys' fees and injunctive relief. The trial occurred in September and October 2011, and the jury returned a unanimous verdict that the Company did not infringe. IMRA America has filed post-trial motions seeking to set aside the jury verdict. IMRA also has the right to appeal the verdict. The Company believes it has meritorious defenses and will vigorously contest the filed motions and any appeal. No loss was deemed probable at December 31, 2011 and no amounts have been accrued with respect to this contingency.

12. EMPLOYEE BENEFIT PLANS

We maintain a 401(k) retirement savings plan covering all of our U.S. employees. We make matching contributions equal to 50% of the employee's contributions, subject to a maximum of 6% of eligible compensation. Compensation expense related to our contribution to the plan for the years ended December 31, 2011, 2010 and 2009, approximated \$701, \$607 and \$463, respectively.

We have offered an employee stock purchase plan covering our U.S. and German employees. The plan allows employees who participate to purchase shares of common stock through payroll deductions at a 15% discount to the lower of the stock price on the first day or the last day of the six-month purchase period. Payroll deductions may not exceed 10% of the employee's compensation and are subject to other limitations. Compensation expense related to the employee stock purchase plan approximated \$359, \$206 and \$205 for the years ended December 31, 2011, 2010 and 2009, respectively. As of December 31, 2011, there were 245,747 shares available for issuance under the employee stock purchase plan.

13. BUSINESS COMBINATIONS

In January 2010, we completed the acquisition of the outstanding shares of privately-held, Birmingham, Alabama-based Photonics Innovations, Inc., a maker of active and passive laser materials and tunable lasers for scientific, biomedical, technological, and eyesafe range-finding applications. The acquisition allows us to expand our product offerings to the middle infrared (approximately 2 to 5 micron). In April 2010, we completed the acquisition of privately-held, Germany-based Cosytronic KG, a specialist in joining technology with an emphasis on engineering know-how in automated welding turnkey solutions. The acquisition allows us to extend our product offerings to include a welding tool that integrates seamlessly with IPG's fiber laser.

The total cash paid for these acquisitions in 2010 was \$4,508. The acquisitions also included seller provided financing and contingent consideration which is more fully discussed in the fair value disclosures in Note 1. The assets acquired were primarily intangible and included patents, production know-how and customer relationships which are more fully described in the intangible asset disclosures in Note 1. The acquisitions did not have a material effect on the financial results in 2010.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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14. INCOME TAXES

Income (loss) before the impact of income taxes for the years ended December 31 consisted of the following:

	<u>2011</u>	<u>2010</u>	<u>2009</u>
U.S.	\$ 42,637	\$17,879	\$ (2,844)
Foreign	131,947	61,373	10,613
Total	<u>\$174,584</u>	<u>\$79,252</u>	<u>\$ 7,769</u>

Our provision for income taxes for the years ended December 31 consisted of the following:

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Current:			
Federal	\$(15,355)	\$ (8,859)	\$ (842)
State	(447)	25	(56)
Foreign	(38,061)	(16,467)	(5,674)
Total current	<u>\$(53,863)</u>	<u>\$(25,301)</u>	<u>\$(6,572)</u>
Deferred:			
Federal	\$ 630	\$ 395	\$ 2,192
State	106	26	185
Foreign	(448)	(20)	1,918
Change in valuation allowance	—	—	(208)
Total deferred	<u>\$ 288</u>	<u>\$ 401</u>	<u>\$ 4,087</u>
Provision for income taxes	<u>\$(53,575)</u>	<u>\$(24,900)</u>	<u>\$(2,485)</u>

Correction to 2010 and 2009 amounts – We corrected the current federal and state provision and made offsetting correcting changes to the deferred federal and state provision to reflect the presentation of certain items. The current tax provision and the deferred tax benefit in 2010 decreased by \$638, and the current tax provision and the deferred tax benefit in 2009 increased by \$800. The overall provision was unchanged.

A reconciliation of income tax expense at the U.S. federal statutory income tax rate to the recorded tax provision for the years ended December 31, is as follows:

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Tax at statutory rate	\$(61,104)	\$(27,738)	\$(2,719)
Non-U.S. rate differential — net	9,295	5,867	598
State income taxes — net	(1,200)	(625)	(59)
Effect of changes in enacted tax rates on deferred tax assets and liabilities	(192)	(186)	196
Nondeductible stock compensation expense	(448)	(312)	(321)
Other nondeductible expenses	(339)	(603)	(141)
Tax credits	2,002	1,104	737
Change in reserves, including interest and penalties	(1,688)	(1,501)	(666)
Settlements, interest and penalties	1	(987)	—
Change in valuation allowance	—	(106)	(208)
Other — net	98	187	98
	<u>\$(53,575)</u>	<u>\$(24,900)</u>	<u>\$(2,485)</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, are as follows:

	<u>2011</u>	<u>2010</u>
Property, plant and equipment	\$ 901	\$ 1,075
Inventory provisions	7,281	7,294
Allowances and accrued liabilities	(1,494)	(1,830)
Other tax credits	1,260	1,994
Deferred compensation	2,669	1,417
Net operating loss carryforwards	21	56
Valuation allowance	(314)	(314)
Net deferred tax assets	<u>\$10,324</u>	<u>\$ 9,692</u>

In general, it is our practice and intention to reinvest the earnings of non-U.S. subsidiaries in those operations. Accordingly, we have not made any provision for additional U.S. or foreign withholding taxes with respect to repatriation of earnings of non-U.S. subsidiaries. At December 31, 2011, the cumulative unremitted earnings that are reinvested in non-U.S. subsidiaries are approximately \$122,000.

Deferred tax assets and liabilities shown above do not include certain deferred tax assets from tax deductions related to tax-deductible equity compensation in excess of equity compensation recognized for financial reporting. As of December 31, 2011, we have U.S. federal and state credit carry forwards of \$1,070 and \$918, respectively, that are not included in deferred tax assets. The federal and state credit carry forwards begin expiring in 2022 and 2012, respectively.

The following is a tabular reconciliation of the total amounts of unrecognized tax benefits:

	<u>2011</u>	<u>2010</u>	<u>2009</u>
Unrecognized tax benefit — January 1	\$2,951	\$ 2,131	\$1,672
Settlements of prior period positions	(335)	(1,336)	—
Gross increases — tax positions in prior period	—	—	459
Gross increases — tax positions in current period	1,893	2,156	—
Unrecognized tax benefit — December 31	<u>\$4,509</u>	<u>\$ 2,951</u>	<u>\$2,131</u>

Estimated penalties and interest related to the underpayment of income taxes are \$133, \$4 and \$206 for the years ended December 31, 2011, 2010 and 2009, respectively, and are included within the provision for income taxes. Total accrued penalties and interest related to the underpayment of income taxes are \$275 and \$142 at December 31, 2011 and 2010, respectively.

Our uncertain tax positions are related to tax years that remain subject to examination by the relevant taxing authorities. If realized, all of our uncertain tax positions would affect our effective tax rate. None of the uncertain tax positions are expected to settle within one year. Open tax years by major jurisdictions are:

- United States 2002 — 2011
- Germany 2009 — 2011
- Russia 2009 — 2011

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15. GEOGRAPHIC AND PRODUCT INFORMATION

We market and sell our products throughout the world through both direct sales and distribution channels. The geographic sources of our net sales based on billing addresses of our customers are as follows:

	Year Ended December 31,		
	2011	2010	2009
United States and other North America	\$ 86,181	\$ 61,706	\$ 45,668
Europe:			
Germany	76,279	46,282	28,242
Other including Eastern Europe/CIS	103,305	66,174	42,171
Asia and Australia:			
Japan	63,261	35,878	29,937
China	104,560	57,762	20,942
Other	36,937	30,614	15,221
Rest of World	3,959	840	3,713
Total	<u>\$474,482</u>	<u>\$299,256</u>	<u>\$185,894</u>

Sales are derived from products for different applications: fiber lasers, diode lasers and diodes for materials processing, fiber lasers and amplifiers for advanced applications, fiber amplifiers for communications applications, and fiber lasers for medical applications. Net sales for these product lines are as follows:

	Year Ended December 31,		
	2011	2010	2009
Materials processing	\$419,443	\$252,014	\$140,864
Advanced applications	25,918	25,196	26,557
Communications	20,368	14,020	10,867
Medical	8,753	8,026	7,606
Total	<u>\$474,482</u>	<u>\$299,256</u>	<u>\$185,894</u>

No single customer comprised more than 10% of net sales during the years ended December 31, 2011, 2010 or 2009. We have historically depended on a few customers for a significant percentage of our annual net sales. The composition of this group can change from year to year. Net sales derived from our five largest customers as a percentage of our annual net sales were 17% in 2011, 19% in 2010 and 12% in 2009. Sales to our largest customer accounted for 8%, 7% and 3% of our net sales in 2011, 2010 and 2009, respectively.

The geographic locations of our long-lived assets, based on physical location of the assets, as of December 31, 2011 and 2010, are as follows:

	December 31,		
	2011	2010	2009
United States	\$ 67,550	\$ 59,072	\$ 57,898
Germany	40,983	41,065	46,567
Russia	32,197	16,578	10,154
China	5,550	3,865	4,205
Other	12,721	4,723	1,512
	<u>\$159,001</u>	<u>\$125,303</u>	<u>\$120,336</u>

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Long-lived assets include property, plant and equipment and demonstration equipment.

16. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

<u>2011</u>	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
	(In thousands, except per share data)			
Net sales	\$99,958	\$121,936	\$129,064	\$123,524
Gross profit	53,666	66,706	70,459	66,424
Net income	23,378	31,507	34,269	31,855
Net income attributable to IPG Photonics Corporation	23,068	30,736	32,869	31,086
Basic earnings per share	0.49	0.65	0.68	0.65
Diluted earnings per share	0.47	0.63	0.66	0.64
<u>2010</u>	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
	(In thousands, except per share data)			
Net sales	\$51,204	\$67,258	\$79,809	\$100,985
Gross profit	20,547	30,461	39,931	55,519
Net income	3,424	10,345	13,315	27,268
Net income attributable to IPG Photonics Corporation	3,397	10,306	13,226	27,062
Basic earnings per share	0.07	0.22	0.28	0.58
Diluted earnings per share	0.07	0.22	0.28	0.56

INDEX TO EXHIBITS

<u>Exhibit Number</u>	<u>Description</u>
3.1	Form of Second Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.2 to Registration Statement No. 333-136521 filed with the Securities and Exchange Commission (the "Commission") on August 11, 2006)
3.2	Form of Certificate of Amendment of Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.4 to Registration Statement No. 333-136521 filed with the Commission on November 24, 2006)
3.3	Amended and Restated By-laws of the Registrant (incorporated by reference to Exhibit 3.4 to Registration Statement No. 333-136521 filed with the Commission on August 11, 2006)
4.1	Specimen Stock Certificate (incorporated by reference to Exhibit 4.1 to Registration Statement No. 333-136521 filed with the Commission on November 14, 2006)
4.2	Form of Indenture, to be entered into between the Company and the trustee designated therein (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed with the Commission on December 2, 2009)
10.1	2000 Incentive Compensation Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2007)
10.2	Amendment to Section 4.2 of 2000 Incentive Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)
10.3	2006 Incentive Compensation Plan (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2007)
10.4	Amendment to Section 4.2 of 2006 Incentive Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)
10.5	2006 Stock Incentive Plan, as amended, as amended July 28, 2011 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on August 2, 2011)
10.6	Non-Employee Directors Stock Plan, as amended April 2, 2010 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on June 8, 2010)
10.7	IPG Photonics Non-Employee Director Compensation Plan, amended February 23, 2011 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on March 3, 2011)
10.8	Non-Employee Director Compensation Plan, as amended February 3, 2011 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on March 2, 2011)
10.9	Senior Executive Short-Term Incentive Plan (incorporated by reference to Exhibit 10.5 to Registration Statement No. 333-136521 filed with the Commission on August 11, 2006)
10.10	2008 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)
10.11	Amendment to 2008 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on June 15, 2009)
10.12	Employment Agreement by and between the Registrant and Valentin P. Gapontsev, dated May 9, 2008 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)

<u>Exhibit Number</u>	<u>Description</u>
10.13	First Amendment to Employment Agreement dated September 16, 2010, between the Registrant and Valentin Gapontsev (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the Commission on August 5, 2010)
10.14	Service Agreement by and between the Registrant and Eugene Scherbakov, dated May 9, 2008 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)
10.15	Form of Employment Agreement dated May 9, 2008, between the Registrant and each of Timothy P.V. Mammen, Angelo P. Lopresti, George H. BuAbbud, William S. Shiner and Alexander Ovtchinnikov (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)
10.16	Form of Amendment to Employment Agreement dated December 21, 2009, between the Registrant and each of Eugene Scherbakov, Timothy P.V. Mammen, Angelo P. Lopresti, George H. BuAbbud, William S. Shiner and Alexander Ovtchinnikov (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on December 21, 2009)
10.17	Form of Second Amendment to Employment Agreement dated September 16, 2010, between the Registrant and each of Eugene Scherbakov, Timothy P.V. Mammen, Angelo P. Lopresti, George H. BuAbbud, William S. Shiner and Alexander Ovtchinnikov dated as of August 5, 2010 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on September 16, 2010)
10.18	Form of Third Amendment to Employment Agreement dated September 16, 2011, between the Registrant and each of Eugene Scherbakov, Timothy P.V. Mammen, Angelo P. Lopresti, George H. BuAbbud, William S. Shiner and Alexander Ovtchinnikov (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on September 19, 2011).
10.19	Form of Confidentiality, Non-Competition and Confirmatory Assignment Agreement between the Registrant and each of the named executive officers and certain other executive officers. (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the Commission on May 13, 2008)
10.20	Form of Indemnification Agreement between the Registrant and each of its Directors and Executive Officers (incorporated by reference to Exhibit 10.13 to Registration Statement No. 333-136521 filed with the Commission on August 11, 2006)
10.21	Form of Stock Option Agreement under the 2000 Incentive Compensation Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2007)
10.22	Form of Stock Option Agreement under the 2006 Incentive Compensation Plan (incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2007)
10.23	Form of Stock Option Agreement under the 2006 Non-Employee Directors Stock Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on May 15, 2007)
10.24	Loan Agreement between the Registrant and Bank of America, N.A. dated as of June 4, 2008 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on June 9, 2008)
10.25	Revolving Credit Note by the Registrant dated June 4, 2008 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the Commission on June 9, 2008)
10.26	Term Note by the Registrant dated June 4, 2008 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed with the Commission on June 9, 2008)

<u>Exhibit Number</u>	<u>Description</u>
10.27	Mortgage and Security Agreement between Registrant and Bank of America, N.A. dated as of June 4, 2008 (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed with the Commission on June 9, 2008)
10.28	Second Amendment to Loan Agreement, between the Registrant and Bank of America, N.A., dated as of September 30, 2010 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on November 9, 2010)
10.29	Revolving Credit Note Modification Agreement No. 1, between the Registrant and Bank of America, N.A., dated as of September 30, 2010 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on November 9, 2010)
10.30	Term Note Modification Agreement No. 1, between the Registrant and Bank of America, N.A., dated as of September 30, 2010 (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on November 9, 2010)
10.31	Credit Facility Agreement between IPG Laser GmbH and Deutsche Bank AG dated June 23, 2010 (incorporated by reference to Exhibit 10.28 to the Registrant's Annual Report on Form 10-K filed with the Commission on March 15, 2011)
10.32	Guarantee of the Registrant dated October 10, 2007 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on November 8, 2007)
10.33	Annex 1 dated March 5, 2009, to Guaranty of the Registrant dated October 10, 2007 (incorporated by reference to Exhibit 10.28 to the Registrant's Annual Report on Form 10-K filed with the Commission on March 11, 2009)
10.34	Agreement and Plan of Reorganization among the Registrant, IPG Laser GmbH, Valentin P. Gapontsev and Igor Samartsev, dated as of August 5, 2008 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed with the Commission on August 11, 2008)
10.35	Investment Agreement by and among the Registrant, The Russian Corporation of Nanotechnologies, IPG Laser GmbH and NTO IRE-Polus, dated October 29, 2010 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on November 4, 2010)
10.36	Form of Put and Call Option Agreement between the Registrant and The Russian Corporation of Nanotechnologies (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed with the Commission on November 4, 2010)
12.1	Statement re Computation of Earnings to Fixed Charges
21.1	List of Subsidiaries
23.1	Consent of Deloitte & Touche LLP
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 1350
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase



**NOTICE AND PROXY STATEMENT
2012**



Dear Fellow Stockholder:

You are cordially invited to attend our annual meeting of stockholders on June 5, 2012. We will hold the meeting at 10:00 a.m. Eastern Time at our world headquarters, 50 Old Webster Road, Oxford, Massachusetts.

In connection with the meeting, we have prepared a notice of the meeting, a proxy statement, and our 2011 annual report to stockholders, which provide detailed information relating to our activities and operating performance.

Whether or not you plan to attend the annual meeting of stockholders, we encourage you to **vote your shares**. You may vote:

- via Internet;
- by telephone;
- by mail; or
- in person at the meeting.

If you plan to attend the annual meeting in person, you must provide proof of share ownership, such as an account statement, and a form of personal identification in order to be admitted to the meeting.

We will make available an alphabetical list of stockholders entitled to vote at the meeting, for examination by any stockholder during our ordinary business hours at the Office of the Secretary, located at our Oxford, Massachusetts headquarters, for the ten-day period before the annual meeting.

On behalf of the entire IPG Board of Directors, we look forward to seeing you at the meeting.

Sincerely,

A handwritten signature in black ink, appearing to read 'Valentin P. Gapontsev', written over a horizontal line.

Dr. Valentin P. Gapontsev
*Chairman of the Board of Directors and
Chief Executive Officer*

April 16, 2012



NOTICE OF 2012 ANNUAL MEETING OF STOCKHOLDERS

Dear Stockholder:

We invite you to attend our 2012 annual meeting of stockholders which is being held as follows:

Date: Tuesday, June 5, 2012
Time: 10:00 a.m. Eastern Time
Location: IPG Photonics Corporation
50 Old Webster Road
Oxford, Massachusetts 01540

At the meeting, we will ask our stockholders to:

- elect nine directors named in the proxy to serve until our 2013 annual meeting of stockholders;
- ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for 2012; and
- consider any other business properly presented at the meeting.

You may vote on these matters in person or by proxy. Whether or not you plan to attend the meeting, we ask that you promptly **vote your shares**. Only stockholders of record at the close of business on April 9, 2012 may vote at the meeting.

By order of the Board of Directors,
IPG PHOTONICS CORPORATION

A handwritten signature in black ink, appearing to read 'Angelo P. Lopresti'.

Angelo P. Lopresti
Vice President, General Counsel and Secretary
Oxford, Massachusetts

April 16, 2012

Our Proxy Statement and Annual Report on Form 10-K for the year ended December 31, 2011
are available at <http://investor.ipgphotonics.com/annual-proxy.cfm>

PROXY STATEMENT

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PROXY STATEMENT 2012 ANNUAL MEETING OF STOCKHOLDERS

GENERAL INFORMATION

Our Board of Directors is soliciting proxies from our stockholders in connection with our annual meeting of stockholders to be held on Tuesday, June 5, 2012 and at any and all adjournments thereof. No business can be conducted at the annual meeting unless a majority of all outstanding shares entitled to vote are either present in person or represented by proxy at the meeting. As far as we know, the only matters to be brought before the annual meeting are those referred to in this proxy statement. If any additional matters are presented at the annual meeting, the persons named as proxies may vote your shares in their discretion.

This proxy statement and our 2011 annual report are first being mailed to stockholders of record on about April 16, 2012, and are made available on our website at <http://investor.ipgphotonics.com/annual-proxy.cfm>. Information on our website does not constitute part of this proxy statement.

Unless otherwise noted, the information in this proxy statement covers our 2011 fiscal year (or “fiscal 2011”), which ran from January 1, 2011 through December 31, 2011, and, in some cases, our 2010 fiscal year (or “fiscal 2010”), which ran from January 1, 2010 through December 31, 2010.

Questions and Answers About the Annual Meeting and Voting

When and Where Is the Annual Meeting?

When: Tuesday, June 5, 2012, at 10:00 a.m. Eastern Time
Where: IPG Photonics Corporation
50 Old Webster Road
Oxford, Massachusetts

Who Is Entitled to Vote at the Meeting?

You are entitled to vote at the meeting if you owned IPG Photonics shares (directly or in “street name”, as defined below) as of the close of business on April 9, 2012, the record date for the meeting. On that date, 50,966,346 shares of our common stock were outstanding and entitled to vote and no shares of our preferred stock were outstanding. Each share of our common stock is entitled to one vote with respect to each matter on which it is entitled to vote; there is no cumulative voting with respect to any proposal.

What Do I Need to Do If I Plan to Attend the Meeting in Person?

If you plan to attend the annual meeting in person, you must provide proof of your ownership of our common stock and a form of personal identification for admission to the meeting.

If you are a stockholder of record, the top half of your proxy card is your admission ticket. If you hold your shares in street name, you will need proof of ownership to be admitted to the meeting. A recent brokerage statement or a letter from your bank or broker are examples of proof of ownership. If you hold your shares in street name and you also wish to be able to vote at the meeting, you must obtain a proxy, executed in your favor, from your bank or broker.

What Is the Difference Between Holding Shares Directly as a Stockholder of Record and Holding Shares in “Street Name” at a Bank or Broker?

Most of our stockholders hold their shares directly through a broker, bank or other nominee rather than directly in their own name. As summarized below, there are differences between shares held of record and those held in “street name.”

Stockholder of Record: If your shares are registered directly in your name with our transfer agent, you are considered the stockholder of record with respect to those shares, and the proxy statement and annual report were sent directly to you. As the stockholder of record, you have the right to vote your shares as described herein.

"Street Name" Stockholder: If your shares are held by a bank or broker as your nominee, you are considered the beneficial owner of shares held in "street name," and the proxy statement and annual report were forwarded to you by your bank or broker who is considered the stockholder of record with respect to those shares. Your bank or broker sent to you, as the beneficial owner, a document describing the procedure for voting your shares. You should follow the instructions provided by your bank or broker to vote your shares. You are also invited to attend the annual meeting.

What Matters Am I Being Asked to Vote On at the Meeting and What Vote is Required to Approve Each Matter?

You are being asked to vote on two proposals. Proposal 1 requests the election of directors. Each director will be elected by the vote of the plurality of the votes cast when a quorum is present. A "plurality of the votes cast" means that the nine persons receiving the greatest number of votes cast "for" will be elected. "Votes cast" excludes abstentions and any votes withheld by brokers in the absence of instructions from street-name holders ("broker non-votes").

Proposal 2 requests the ratification of the appointment of our independent registered public accounting firm. The affirmative vote of a majority of the shares which are present at the meeting in person or by proxy, and entitled to vote thereon, is required for such ratification. Abstentions have the same effect as voting against Proposal 2.

Who Counts the Votes?

We have engaged Computershare, N.A. as our independent agent to receive and tabulate stockholder votes. Computershare will separately tabulate "for," "against" and "withhold" votes, abstentions and broker non-votes. Computershare will also act as independent election inspector to certify the results, determine the existence of a quorum and the validity of proxies and ballots, and perform any other acts required under the General Corporation Law of Delaware.

How Can I Vote?

Most stockholders have a choice of voting in one of four ways:

- via the Internet;
- using a toll-free telephone number;
- completing a proxy/voting instruction card and mailing it in the postage-paid envelope provided; or
- in person at the meeting.

The telephone and Internet voting facilities for stockholders of record will close at 1:00 a.m. Central Time on June 5, 2012. The Internet and telephone voting procedures are designed to authenticate stockholders by use of a control number and to allow you to confirm that your instructions have been properly recorded.

Please read the instructions on the proxy card or the information sent by your broker or bank if you hold your shares in street name, your bank or broker will send you a separate package describing the procedures and options for voting your shares.

What Does it Mean to Give a Proxy?

Your properly completed proxy/voting instruction card will appoint Valentin P. Gapontsev and Angelo P. Lopresti as proxy holders or your representatives to vote your shares in the manner directed therein by you. Dr. Gapontsev is our Chairman of the Board and Chief Executive Officer. Mr. Lopresti is our Vice President, General Counsel and Secretary. Your proxy permits you to direct the proxy holders to vote "for" or "against," or "abstain" from, the nominees for director and Proposal 2.

All of your shares entitled to vote and represented by properly completed proxy or voting instruction received prior to the meeting and not revoked will be voted at the meeting in accordance with your instructions.

What Happens If I Sign, Date and Return My Proxy But Do Not Specify How I Want My Shares Voted on One of the Proposals?

Stockholder of Record: Your proxy will be counted as a vote "For" all of the nominees for director and "For" Proposal 2.

Street Name Stockholder: Your broker or nominee may vote your shares only on those proposals on which it has discretion to vote. Under New York Stock Exchange rules, your broker or nominee does not have discretion to vote your shares on non-routine matters such as the election of directors. However, your broker or nominee does have discretion to vote your shares on routine matters such as Proposal 2.

Can I Change My Vote Before the Meeting?

You can change your vote at any time before your proxy is exercised by delivering a properly executed, later-dated proxy (including an Internet or telephone vote), by revoking your proxy by written notice to the Secretary of IPG Photonics, or by voting at the meeting. The method by which you vote by a proxy will in no way limit your right to vote at the meeting if you decide to attend in person.

If you are a Street Name Stockholder, please refer to the information forwarded by your bank or broker for procedures on changing your voting instructions.

Is the Proxy Statement Available on the Internet?

Yes. We are mailing copies of the proxy statement and our 2011 annual report to all stockholders. Stockholders can also view these documents on the Internet by accessing our website at <http://investor.ipgphotonics.com/annual-proxy.cfm>.

Who Is Soliciting my Proxy and Who is Paying for the Cost of this Proxy Solicitation?

The Board of Directors of IPG Photonics is soliciting your proxy to vote at the 2012 annual meeting of stockholders. IPG Photonics will bear the expense of preparing, printing and mailing this proxy material, as well as the cost of any required solicitation. Our directors, officers or employees may solicit proxies on our behalf. We have not engaged a proxy solicitation firm to assist us in the solicitation of proxies, but we may if we deem it appropriate. In addition, we will reimburse banks, brokers and other custodians, nominees and fiduciaries for reasonable expenses incurred in forwarding proxy materials to beneficial owners of our stock and obtaining their proxies.

What Is the Quorum Required to Transact Business?

At the close of business on April 9, 2012, there were 50,966,346 shares of our common stock outstanding. Our by-laws require that a majority of our common stock be represented, in person or by proxy, at the meeting in order to constitute the quorum we need to transact business at the meeting. We will count abstentions and broker non-votes in determining whether a quorum exists.

CORPORATE GOVERNANCE

At IPG Photonics, we believe that strong and effective corporate governance procedures and practices are an extremely important part of our corporate culture. We have summarized several of our corporate governance practices below.

Changes to Our Corporate Governance Practices During 2011

As part of its regular review of our corporate governance practices, our Board of Directors (the "Board") periodically approves changes to our governance documentation, including our Code of Business Conduct,

Corporate Governance Guidelines, Board Committee charters and other policies, designed to clarify their terms and promote consistency with prevailing best governance practices. During 2011, the Board approved several such changes, the most notable of which was an amendment to our Insider Trading Policy to prohibit officers and directors from engaging in short sales of our common stock or buying or selling puts, calls or derivatives related to our common stock.

Significant Corporate Governance Practices and Policies

Listed below are some of the significant corporate governance practices and policies we have adopted:

- *Independent Director Majority and Presiding Independent Director.* Six of the nine directors on our Board are non-employees of the Company who meet the independence criteria under applicable SEC rules and NASDAQ guidelines. Only the independent directors sit on our three standing Board committees. The Board established the role of a presiding independent director who is elected by the independent directors. More information about the role of the independent directors, the presiding independent director and our Board structure can be found below in this section.
- *Executive Sessions.* Our Board meets regularly in executive sessions without the presence of management, including our Chairman. These sessions are led by our presiding independent director, as described further below in this section.
- *Annual Election of Entire Board.* Stockholders elect each director annually. We do not have a classified board.
- *Related Person Transaction Policy.* Our Nominating and Corporate Governance Committee is responsible for approving or ratifying transactions involving our Company and related persons and determining if the transaction is in, or not inconsistent with, the best interests of our Company and our stockholders. More information about our Related Person Transaction Policy and transactions can be found below in this section.
- *Stock Ownership Guidelines.* Our directors and executive officers are required to own a minimum amount of IPG Photonics shares. We believe that stock ownership requirements align the interest of the directors and officers with stockholders.
- *Prohibition on Hedging.* Our Insider Trading Policy expressly prohibits engaging in short sales of our common stock or buying or selling puts, calls or derivative securities by directors and employees in connection with IPG Photonics shares.

Additional information is provided below regarding these and certain other key corporate governance policies, which we believe enable us to manage our business in accordance with the highest standards of business practices and in the best interest of our stockholders. Our corporate website includes additional information and copies of these policies, as noted below. Most policies may be found at <http://investor.ipgphotonics.com/governance.cfm>. Note that information on our website does not constitute part of this proxy statement. Hard copies of these documents may be obtained without charge by any stockholder upon request by contacting the Office of the Secretary, IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts 01540.

Corporate Governance Guidelines

Our Board has adopted Corporate Governance Guidelines that outline, among other matters, the role and functions of the Board, the responsibilities of various Board committees and the mission of the Board. Each of the Board committees has a written charter that sets forth the purposes, goals and responsibilities of the committee as well as qualification for committee membership, procedures for committee membership, appointment and removal, committee structure and operations and committee reporting to the full board.

The Governance Guidelines provide, among other things, that:

- a majority of our Board must be independent;
- the presiding independent director presides over executive sessions of independent directors;

- the Board appoints all members and chairpersons of the Board committees;
- the Audit, Compensation, and Nominating and Corporate Governance Committees consist solely of independent directors;
- the independent directors meet periodically in executive sessions without the presence of the non-independent directors or members of our management;
- directors may not serve on the boards of more than three other public companies; and
- evaluations of the Board and committees are to be conducted annually.

The Board regularly reviews changing legal and regulatory requirements, evolving best practices and other developments. The Board modifies the Governance Guidelines and its other corporate governance policies and practices from time to time, as appropriate.

Executive Sessions. Our independent directors meet privately, without employee directors or management present, at least four times during the year. These private sessions are generally held in conjunction with the regular quarterly Board meetings. Other private meetings are held as often as deemed necessary by the independent directors. The Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee meet without employee directors or management present from time to time as they deem necessary.

Director Meetings and Policy Regarding Board Attendance. It has been the practice of our Board to hold at least four in-person regular meetings each year. In accordance with our Governance Guidelines, our directors are expected to prepare for, attend and actively participate in meetings of the Board of Directors and meetings of committees on which they serve. Our directors are expected to spend the time needed at each meeting and to meet as frequently as necessary to properly discharge their responsibilities. We encourage members of our Board to attend annual meetings of stockholders, but we do not have a formal policy requiring them to do so.

Stock Ownership Guidelines. The Board adopted stock ownership guidelines to more closely align the interests of our directors and executive officers with those of our long-term stockholders. Under the guidelines, the following persons are expected to maintain a minimum investment in our common stock as follows: for non-employee directors, the lesser of 3,000 shares or one times their annual cash Board retainer (excluding committee retainers); for the Chief Executive Officer, the lesser of 7,500 shares or one times his annual salary; and for other executive officers, the lesser of 5,000 shares or one times their respective annual salaries. Vested equity compensation, such as vested stock options and restricted stock, counts towards the stock ownership levels. Indirect ownership of shares through a separate legal entity counts toward fulfillment of the ownership guidelines. These ownership levels are to be achieved no later than four years after the election as a director or as an executive officer, except that prior to such time the director or officer is expected to retain a certain portion of stock issued upon exercise of stock options or issuance of stock under equity compensation plans after payment of the exercise price and taxes until the minimum ownership levels are attained. All directors and the Named Executive Officers were in compliance with our stock ownership guidelines as of December 31, 2011.

Board Self-Assessments. The Board conducts annual self-evaluations to determine whether it and its committees are functioning effectively. The Nominating and Corporate Governance Committee oversees the Board and committee self-assessments and the Board receives a report on its self-assessments annually. Each committee reviews and reassesses the adequacy of its charter annually and recommends any proposed changes. Each committee also annually reviews its own performance and reports the results to the Board.

Prohibition on Hedging. Under our Insider Trading Policy, no director or employee may engage in shorting shares of our common stock, or buying or selling puts, calls or derivatives related to our common stock.

Director Orientation and Continuing Education. Upon joining the Board, directors are provided with an initial orientation about our management, including our business operations, strategy and governance. New directors without previous experience as a director of a public company are expected to enroll in a director education program on the principles of corporate governance and director professionalism offered by a nationally-recognized sponsoring organization. We also provide orientation to directors who join a committee,

including oversight responsibilities, policies and practices. We provide our directors with resources and ongoing educational opportunities to assist them in remaining abreast of developments in corporate governance and critical issues relating to the operation of public company boards. We pay for director education expenses and their membership in the National Association of Corporate Directors. The Board also conducts periodic visits to Company facilities as part of its regularly scheduled Board meetings.

Nomination of Directors. The Nominating and Corporate Governance Committee considers candidates for director nominees proposed by directors and stockholders. This Committee may retain recruiting professionals and use director databases to assist in identifying and evaluating candidates for director nominees. The Board seeks members from diverse professional backgrounds with a reputation for integrity who do not have professional commitments that might unreasonably interfere with the demands and duties of a board member. Candidates for director are reviewed in the context of the current composition of the Board, the operating requirements of the Company and the long-term interests of the Company's stockholders. The Nominating and Governance Committee seeks diversity in the membership of the Board. It does not have formal objective criteria for determining the degree of diversity needed or present on the Board. Instead, it and the Board seek candidates with a range of experience. Board candidates are considered based upon various criteria, such as age, skills, knowledge, perspective, broad business judgment and leadership, knowledge of relevant industry, technical or regulatory affairs, business creativity and vision, experience and any other factors appropriate in the context of an assessment by the Nominating and Corporate Governance Committee of the needs of the Board at that time. Candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, and must be over 21 years of age and possess the highest personal integrity and ethics. In addition, the Nominating and Corporate Governance Committee considers whether the individual satisfies criteria for independence as may be required by applicable regulations.

The Nominating and Corporate Governance Committee has adopted a policy under which it will consider nominations by stockholders. The same identifying and evaluating procedures apply to all candidates for director nomination, including candidates submitted by stockholders. The Nominating and Corporate Governance Committee evaluates and interviews potential board candidates. All members of the Board may interview the final candidates.

Code of Business Conduct. We have a code of business conduct that applies to all of our directors and employees, including our Chief Executive Officer, Chief Financial Officer and other executive officers. Our code of business conduct includes provisions covering conflicts of interest, business gifts and entertainment, outside activities, compliance with laws and regulations, insider trading practices, antitrust laws, payments to government personnel, bribes or kickbacks, corporate record keeping and accounting records. The code of business conduct is posted on our website at www.ipgphotonics.com.

Procedures for Submitting Complaints Regarding Accounting and Auditing Matters. We have procedures for the treatment of complaints regarding accounting, internal accounting controls or auditing matters, including procedures for the confidential and anonymous submission by our directors, officers and employees of concerns regarding questionable accounting, internal accounting controls or auditing matters. These procedures are posted on our website at www.ipgphotonics.com.

Director Independence

We follow director independence rules under NASDAQ listing standards and SEC rules. Our Nominating and Corporate Governance Committee has determined that Messrs. Blair, Child, Gauthier, Hurley, Kampfe and Dr. Krupke are "independent" as defined by NASDAQ Rule 4200(a)(15). Our Nominating and Corporate Governance Committee has determined that no such member has a relationship that would interfere with the exercise of independent judgment in carrying out his responsibilities as a director.

Each of the following committees of the Board is composed solely of independent directors:

- the Audit Committee;
- the Compensation Committee; and
- the Nominating and Corporate Governance Committee.

Board Leadership Structure

In accordance with our Governance Guidelines, the Board has appointed a presiding independent director with leadership authority and responsibilities. The presiding independent director sets the agenda for, and leads, executive sessions of the independent directors, providing consolidated feedback, as appropriate, from those meetings to the Chairman and Chief Executive Officer. The presiding independent director provides input on the agenda for board meetings; facilitates discussions outside of scheduled board meetings among the independent directors on key issues as required; and serves as a non-exclusive liaison with the Chairman and Chief Executive Officer in consultation with the other independent directors. The independent directors of our Board elected Mr. Gauthier as presiding independent director in May 2011.

Dr. Gapontsev serves as our Chairman and Chief Executive Officer. He is the founder of the Company and beneficially owns approximately 17.6% of the Company's common stock. His dual role was established ten years ago when the Board was first established. The independent directors believe that at the Company's current stage, Dr. Gapontsev's in-depth knowledge of the Company's operations and vision make him the best-qualified director to serve as Chairman. The Board has a presiding independent director role as described above.

The Board also believes that its existing corporate governance practices achieve independent oversight and management accountability, which is the goal that many other companies seek to achieve by separating the roles of Chairman and Chief Executive Officer. IPG's governance practices provide for strong independent leadership, independent discussion among directors and independent evaluation of, and communication with, members of senior management.

Risk Oversight

One of the Board's primary roles in the Company is to provide general oversight of strategy and operations. As part of its oversight of operations, the entire Board reviews and discusses the performance of the Company and the principal risks involved in the operations and management of the Company. The Board allocates risk oversight responsibility among the full Board, the independent directors and the three committees. The Nominating and Corporate Governance Committee periodically reviews risk oversight matters and responsibilities, then makes recommendations to the Board to allocate risk oversight responsibilities.

The Board as a whole reviews risk management practices and a number of significant risks in the course of its reviews of corporate strategy, management reports and other presentations. The independent directors as a group oversee succession planning. The Audit Committee oversees certain financial risks and recommends guidelines to monitor and control such risk exposures. The Compensation Committee reviews the Company's executive compensation programs, their effectiveness at both linking executive pay to performance and aligning the interests of our executives and our stockholders, and oversees an entity-wide compensation risk assessment. The Nominating and Corporate Governance Committee reviews significant related party transactions with directors, executives and managers and may conduct negotiations on behalf of the Company. The Board's risk oversight role does not interfere with the Company's day-to-day management because two-thirds of the directors are independent directors and therefore have no conflicts that might discourage critical review of the Company's risks.

Related Person Transaction Policy and Transactions

The Board adopted a related person transaction policy that requires the Company's executive officers, directors and nominees for director to promptly notify the Corporate Secretary in writing of any transaction in which (i) the amount exceeds \$100,000, (ii) the Company is, was or is proposed to be a participant and (iii) such person or such person's immediate family members ("Related Persons") has, had or may have a direct or indirect material interest (a "Related Person Transaction"). Subject to certain exceptions in the policy, Related Person Transactions must be brought to the attention of the Nominating and Corporate Governance Committee for an assessment of whether the transaction or proposed transaction should be permitted to proceed. In deciding whether to approve or ratify the Related Person Transaction, the Nominating and Corporate Governance Committee considers relevant facts and circumstances. If the Nominating and Corporate Governance Committee determines that the Related Person has a direct or indirect material interest in any such transaction, the Committee must review and approve, ratify or disapprove the Related Person Transaction.

Pursuant to our Governance Guidelines, we expect each of our directors to ensure that other existing and future commitments do not conflict with or materially interfere with his or her service as a director. Directors are expected to avoid any action, position or interest that conflicts with our interests or gives the appearance of a conflict. In addition, directors are required to inform the chairman of our Nominating and Corporate Governance Committee prior to joining the Board of another public company to ensure that any potential conflicts, excessive time demands or other issues are carefully considered.

There were no related party transactions in 2011 that are required to be disclosed under applicable rules.

Stockholder Communication with our Board of Directors

Stockholders wishing to write to the Board or a specified director or a committee of the Board should send correspondence to IPG Photonics Corporation, attention Secretary, 50 Old Webster Road, Oxford, Massachusetts 01540. All written communications received in such manner from stockholders of the Company will be forwarded to the members or committee of the Board to whom the communication is directed or, if the communication is not directed to any particular member(s) or committee of the Board, the communication shall be forwarded to all members of the Board.

INFORMATION REGARDING THE BOARD OF DIRECTORS

Nominees for Director

The following table sets forth certain information as of March 31, 2012 regarding our incumbent directors. Each of our incumbent directors has been nominated by the Board for election at our 2012 annual meeting.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Valentin P. Gapontsev, Ph.D.	73	Chief Executive Officer and Chairman of the Board
Eugene Scherbakov, Ph.D.	64	Managing Director of IPG Laser and Director
Igor Samartsev	49	Chief Technology Officer
Robert A. Blair	65	Director
Michael C. Child	57	Director
Henry E. Gauthier	71	Director
William S. Hurley	67	Director
Michael R. Kampfe	62	Director
William F. Krupke, Ph.D.	75	Director

Valentin P. Gapontsev, Ph.D., founded IPG in 1990 and has been our Chief Executive Officer and Chairman of our Board since our inception. Prior to that time, he served as senior scientist in laser material physics and head of the laboratory at the Soviet Academy of Science's Institute of Radio Engineering and Electronics in Moscow. He has over thirty years of academic research experience in the fields of solid state laser materials, laser spectroscopy and non-radiative energy transfer between rare earth ions and is the author of many scientific publications and several international patents. Dr. Gapontsev holds a Ph.D. in Physics from the Moscow Institute of Physics and Technology. In 2006, he was awarded the Ernst & Young® Entrepreneur of the Year Award for Industrial Products and Services in New England, and in 2009, he was awarded the Arthur L. Schawlow Award by the Laser Institute of America. Dr. Gapontsev serves as both Chairman and Chief Executive Officer. In 2011, he received the Russian Federation National Award in Science and Technology, and he was also selected as a Fellow of the Optical Society of America. He is the founder of the Company and has successfully led the Company and the Board since the Company was formed. His scientific understanding along with his corporate vision and operational knowledge provide strategic guidance to the Company and the Board. For these reasons, he has been nominated to continue serving on the Board.

Eugene Scherbakov, Ph.D., has served as the Managing Director of IPG Laser GmbH, our German subsidiary, since August 2000 and has been a member of our Board since September 2000. Dr. Scherbakov served as the Technical Director of IPG Laser from 1995 to August 2000. From 1983 to 1995, Dr. Scherbakov was a senior scientist in fiber optics and head of the optical communications laboratory at the General Physics Institute, Russian Academy of Science in Moscow. Dr. Scherbakov graduated from the Moscow Physics and Technology Institute with an M.S. in Physics. In addition, Dr. Scherbakov attended the Russian Academy of Science in Moscow, where he received a Ph.D. in Quantum Electronics from its Lebedev Physics Institute and a Dr.Sci. degree in Laser Physics from its General Physics Institute. Dr. Scherbakov has been nominated to continue serving on the Board because of his position as manager of IPG Laser GmbH and because of his extensive technological knowledge of fiber lasers and components and the manufacturing process. His service as an executive officer of the Company provides the Board with a detailed understanding of the Company's operations.

Igor Samartsev has served as Chief Technology Officer since 2011 and has been a member of our Board since February 2006. Since 2005, he has also served as the Deputy General Manager of our Russian subsidiary, NTO IRE-Polus. He served as the Technical Director of NTO IRE-Polus from 2000 to April 2005 and, from 1993 to 2001, he was the Deputy Director of NTO IRE-Polus. Mr. Samartsev holds an M.S. in Physics from the Moscow Institute of Physics and Technology. Mr. Samartsev is one of the founders of the Company and has a significant management role in the Company as Chief Technology Officer and as Deputy General Manager of our Russian subsidiary. The Board values Mr. Samartsev's understanding of technology developments at the Company as well as our Russian operations. For these reasons, he has been nominated to continue serving on the Board.

Robert A. Blair has served as a member of our Board since September 2000. Since January 1999, Mr. Blair has been the President of the Blair Law Firm P.C. Mr. Blair was a senior partner at the law firm of Manatt, Phelps & Phillips from 1995 to 1999. He was the managing partner of the law firm of Anderson, Hibey, Nauheim & Blair from 1981 to 1995. He is a trustee under Winkler Trusts, previously the primary sources of equity for, and owners of, real estate ventures developed by The Mark Winkler Company. Mr. Blair is managing partner of several real estate partnerships, has been a manager/principal in cellular telephone ventures and assisted in the launch of a VoIP business. He is the founding Chairman and Chairman Emeritus of the S Corporation Association of America. Mr. Blair holds a B.A. in Mathematics from the College of William & Mary, where he previously served on its governing Board of Visitors, and a J.D. from the University of Virginia School of Law. He has been nominated to continue serving on the Board because of his extensive management and legal experience and his knowledge of international business transactions and government practice. Also, Mr. Blair has valuable experience from years of serving on compensation committees and negotiating numerous employment arrangements.

Michael C. Child has served as a member of our Board since September 2000. Since July 1982, Mr. Child has been employed by TA Associates, Inc., a private equity investment firm, where he currently serves as Senior Advisor and prior to January 2011, was Managing Director. Since June 2010, he served on the board of directors of Finisar Corporation, a developer and manufacturer of optical subsystems and components for networks. He previously served as a director of Finisar from 1998 to 2005. Mr. Child holds a B.S. in Electrical Engineering from the University of California at Davis and an M.B.A. from the Stanford University Graduate School of Business. Mr. Child has been nominated to continue serving on the Board because of his extensive knowledge of management, operations and finance of technology growth companies. In addition, he has extensive board and committee experience at both public and private companies.

Henry E. Gauthier has served as a member of our Board since April 2006. Mr. Gauthier was President from February 2005 to May 2005, consultant from January 2004 to February 2005 and June 2005 to December 2006, and Chairman of the board of directors from May 2005 to December 2008, of Reliant Technologies, Inc., which was acquired in December 2008 by Solta Medical, Inc., a manufacturer of medical laser systems and one of our customers. He served as Vice Chairman of the board of directors of Coherent, Inc., a manufacturer of photonic products, from October 2002 to March 2006. He served as Chairman of the board of directors of Coherent, Inc. from February 1997 to October 2002 and was its President from 1983 to 1996. Since July 1996, Mr. Gauthier has served as a principal at Gauthier Consulting. He was a member of the board of directors of Alara, Inc. from 1997

to 2010. Mr. Gauthier attended the United States Coast Guard Academy, San Jose State University, and the Executive Institute of the Stanford University Graduate Business School. *Mr. Gauthier has been nominated to continue serving on the Board because of his extensive knowledge of the laser industry and his management and operational experience from over two decades as an executive at the world's largest publicly held laser company. Having been a member of the audit, compensation, and nominating and corporate governance committees of public and private company boards in the technology field, Mr. Gauthier is familiar with a full range of corporate and board functions.*

William S. Hurley has served as a member of our Board since April 2006. Since April 2006, he has been principal of W. S. Hurley Financial Consulting, which provides supplemental chief financial officer services. From 2002 to April 2006, he was a partner with Tatum LLC, a nationwide executive services and consulting firm. He was Senior Vice President and Chief Financial Officer at Applied Science & Technology, a developer, manufacturer and supporter of semiconductor capital equipment, from 1999 until 2001. He served as Vice President and Chief Financial Officer at Cybex International, Inc., a designer, manufacturer and distributor of fitness equipment, from 1996 to 1999. From 1992 to 1995, he was Vice President-Controller and Chief Accounting Officer at BBN Corporation, formerly known as Bolt, Beranek & Newman, Inc., a high technology company. From 1993 to 2004, Mr. Hurley was a member of the board of directors of The L. S. Starrett Company, a manufacturer of precision tooling, where he served on the audit and compensation committees. He holds a B.S. in Accounting from Boston College and an M.B.A. in Finance from Columbia University Graduate School of Business, is a certified public accountant, and possesses a Certificate of Director Education issued by the National Association of Corporate Directors. *He has been nominated to continue serving on the Board because of the extensive experience he gained during his service on the board of directors of The L. S. Starrett Company and his experience as a chief financial officer of three public companies.*

Michael R. Kampfe has served as a member of our Board since May 2011. Since 2001, he has been an independent consultant advising on general management and strategy matters, sales, tooling and manufacturing processes. From 1984 to 2000, he was employed by GSI Group, a manufacturer of optical, scanning and laser components and system product lines, serving in several management positions as Vice President. His last position was Vice President of Operations. Mr. Kampfe holds a B.S. in Mechanical Engineering from the University of Arizona, and he attended the Executive Institute at Stanford University. He has a license in professional engineering. He has been nominated as a director because of his experience in managing and growing laser systems businesses. *Mr. Kampfe has been nominated to continue serving on the Board because he has extensive knowledge of managing and growing laser systems businesses. Mr. Kampfe has extensive knowledge of managing complex product lines, laser systems, operations and sales functions, as well as managing and expanding global operations that the Board believes is helpful as the Company implements its growth strategies.*

William F. Krupke, Ph.D., has served as a member of our Board of Directors since February 2001. Since 1999, Dr. Krupke has been president of a laser technology and applications consulting firm (now WFK Lasers, LLC). From 1972 to 1999, Dr. Krupke worked at the Lawrence Livermore National Laboratory, which provides research and development services to various U.S. government departments, serving for the last twenty of such years as Deputy Associate Director of the Laser Programs Directorate. Dr. Krupke holds a B.S. degree in Physics from Rensselaer Polytechnic Institute and M.A. and Ph.D. degrees in Physics from the University of California at Los Angeles. *Dr. Krupke has been nominated to continue serving on the Board because of his deep technological knowledge of lasers from over four decades of experience in the fields of solid-state lasers and innovative laser materials. This provides the Board with valuable insight regarding the Company's products and current technology, as well as the future technological needs of the Company and the laser industry.*

BOARD MEETINGS AND COMMITTEES

The table below shows the number of meetings held by the Board and its committees, actions by written consent, as well as current committee memberships. All incumbent directors attended 75% or more of the aggregate meetings of the Board and committees on which they served during fiscal 2011. We encourage directors to attend the annual meeting of stockholders, but we do not have a formal policy. Last year, four of the directors in office attended the annual meeting.

	Board of Directors	Audit	Compensation	Nominating and Corporate Governance
Meetings held in 2011	6	10	12	6
Written consents in 2011	2	—	1	1
Valentin P. Gapontsev, Ph.D.	Chair			
Robert A. Blair	Member		Chair	Member
Michael C. Child	Member	Member		Chair
Henry E. Gauthier	Member, and presiding independent director	Member		
William S. Hurley	Member	Chair	Member	
Michael R. Kampfe	Member		Member	
William F. Krupke, Ph.D.	Member		Member	Member
Eugene Scherbakov, Ph.D.	Member			
Igor Samartsev	Member			

Audit Committee. The Audit Committee, among other things:

- appoints, approves the fees of, and assesses the independence of our independent registered public accounting firm;
- oversees the work of our independent registered public accounting firm, which includes the receipt and consideration of certain reports from the independent registered public accounting firm;
- resolves disagreements between management and our independent registered public accounting firm;
- pre-approves auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviews and discusses with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- coordinates the oversight of our internal and external controls over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- establishes, reviews and updates our code of business conduct and ethics;
- establishes procedures for the receipt of accounting-related complaints and concerns;
- meets independently with our independent registered public accounting firm and management;
- prepares the Audit Committee report required by SEC rules to be included in our proxy statements; and
- performs any other activities as such committee or the Board determines or is required by the Company's charter or by-laws or applicable law.

The Nominating and Corporate Governance Committee has determined that Mr. Hurley, Chair of the Audit Committee, qualifies as an "audit committee financial expert," as defined under the Securities Exchange Act of 1934, as amended, and the applicable rules of the NASDAQ Global Market.

Compensation Committee. The Compensation Committee, among other things:

- annually reviews and approves base salary, short-term and long-term incentive compensation, perquisites and other benefits for our Chief Executive Officer, other officers and key executives;
- reviews and approves corporate goals and objectives relevant to compensation of our Chief Executive Officer, other officers and key executives;
- evaluates, along with input of the independent directors, the performance of our Chief Executive Officer in light of our corporate goals and objectives and determines the compensation of our Chief Executive Officer;
- periodically reviews compensation practices, procedures and policies throughout the Company;
- reviews and approves employment and severance agreements for our Chief Executive Officer, other officers and key executives;
- appoints and approves the fees of the independent compensation consultant assisting in the evaluation of Chief Executive Officer, senior executives and director compensation, and obtains advice from legal, accounting and other advisors as it deems appropriate;
- reviews and recommends to the Board compensation for non-employee members of the Board;
- administers Company equity-based compensation plans;
- reviews management's risk assessment of the Company's compensation policies and practices for all employees;
- reviews the compensation discussion and analysis and prepares the Compensation Committee Report required by SEC rules to be included in our proxy statement;
- reviews the activities of the saving plan committee; and
- performs any other activities as such committee or the Board determines or is required by the Company's charter or by-laws or applicable law.

Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee, among other things:

- develops and recommends to the Board criteria for board membership;
- recommends to the Board changes that the Committee believes to be desirable with regard to the appropriate size, functions and needs of the Board;
- identifies and evaluates director candidates, including nominees recommended by our stockholders;
- identifies individuals qualified to fill vacancies on any committee of the Board;
- reviews procedures for stockholders to submit recommendations for director candidates;
- recommends to the Board the persons to be nominated for election as directors and to each of the Board's committees;
- reviews the performance of the Committee and evaluates its charter periodically;
- develops and recommends to the Board a set of corporate governance guidelines; and
- reviews and approves related party transactions.

Compensation Committee Interlocks and Insider Participation

No member of our Compensation Committee is or has been an officer or employee of our Company or any of our subsidiaries. In addition, no member of our Compensation Committee has had any related person transactions that require disclosure under the SEC's proxy rules and regulations.

DIRECTOR COMPENSATION

The objectives for our non-employee director compensation program are to attract highly-qualified individuals to serve on our Board and align their interests with those of our stockholders. Our non-employee directors are paid pursuant to our non-employee director compensation plan described below. Our Compensation Committee reviews our director compensation program annually to confirm that the program remains appropriate and competitive and recommends any changes to our full Board for consideration and approval.

Director Compensation Plan

Our non-employee director compensation plan provides for both cash and equity compensation for our non-employee directors. Directors who are also our employees receive no additional compensation for their service as directors. The Compensation Committee engaged Radford, a unit of Aon Hewitt ("Radford"), an independent compensation consultant, to provide a comprehensive review of compensation for non-employee directors and to make recommendations with regard to director compensation matters.

Cash Compensation. Our non-employee directors receive the annual retainers from us set forth in the table below. Directors do not receive separate fees for attending Board or committee meetings or meetings of stockholders.

	<u>Amount</u>
Board Retainer	\$40,000
Presiding Independent Director Retainer	\$20,000
Audit Committee Retainers	
Chair	\$22,500
Non-Chair	\$10,000
Compensation Committee Retainers	
Chair	\$20,000
Non-Chair	\$ 7,500
Nominating and Corporate Governance Committee Retainers	
Chair	\$12,500
Non-Chair	\$ 5,000

In January 2011, the Compensation Committee retained Radford to conduct a review of non-employee director compensation. Based upon information from a peer group and the increase in the time commitment and work load of the committee chairs due to new laws, compliance requirements and oversight responsibilities, the Board approved, effective March 1, 2011, an increase to the Board retainer by \$5,000, increases of the retainers for the Audit Committee and the Nominating and Corporate Governance Committee chair retainers by \$2,500, and an increase for the Compensation Committee chair retainer by \$5,000. These changes are reflected in the table above.

Equity Compensation. Under our non-employee director compensation plan, non-employee directors continuing in office after each annual meeting of stockholders receive a grant of stock options to purchase 6,667 shares of common stock and restricted stock units for 1,000 shares of common stock vesting in a single installment on the earlier of the one-year anniversary of the date of grant or the next annual meeting of stockholders. The presiding independent director receives options to purchase an additional 3,333 shares of common stock and restricted stock units for an additional 500 shares of common stock. Upon initial election to the Board, each new non-employee director receives a grant of stock options to purchase 25,000 shares of our common stock vesting 25% on the first anniversary of the date of grant and 6.25% on each of the next twelve quarters. The exercise price of each of these stock options is the closing market price of our common stock on the date of grant. The non-employee director compensation plan provides that, with respect to options and restricted stock units granted after the adoption of the plan, any director who retires after at least eight years of service on the Board will be entitled to full vesting of all options and restricted stock units then held by such director.

Director Compensation Table

The following table summarizes the compensation of each of our non-employee directors for the fiscal year ended December 31, 2011:

<u>Name</u>	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Stock Awards \$(1)</u>	<u>Option Awards \$(1)</u>	<u>Total (\$)</u>
Robert A. Blair	62,500	75,150	195,343	332,993
Michael C. Child	61,250	75,150	195,343	331,743
John H. Dalton(2)	14,583	—	—	14,583
Henry E. Gauthier	69,375	112,725	293,000	475,100
William S. Hurley	69,375	75,150	195,343	339,868
Michael R. Kampfe(3)	43,361	—	765,000	808,361
William F. Krupke, Ph.D.	52,083	75,150	195,343	322,576

- (1) Valuation based on the fair value of the restricted stock unit and stock option awards as of the grant date determined pursuant to Financial Accounting Standards Board Accounting Standards Codification Topic 718 (“ASC Topic 718”), with respect to 2011. The assumptions that we used with respect to the valuation of restricted stock unit and stock option awards are set forth in Note 2 to our Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 27, 2012. On May 31, 2011, each director elected to the Board other than Mr. Kampfe was granted restricted stock units for 1,000 shares of common stock and options to purchase 6,667 shares of common stock at an exercise price of \$75.15 per share. In addition, Mr. Gauthier, the presiding independent director, was granted on May 31, 2011, restricted stock units for 500 shares of common stock and options to purchase 3,333 shares of common stock at an exercise price of \$75.15 per share. Both restricted stock units and options vest in a single installment on the earlier of the one-year anniversary of the date of grant or the next annual meeting of stockholders. Mr. Kampfe was elected to the Board for the first time on May 31, 2011 and was granted options to purchase 25,000 shares of common stock at an exercise price of \$75.15 per share. These stock options vest over four years from the grant date.
- (2) John H. Dalton served as a member of the Board and the Nominating and Corporate Governance Committee until May 2011.
- (3) Michael R. Kampfe was elected to the Board and became a member of the Compensation Committee in May 2011.

Outstanding Equity Awards Table

The following table provides information regarding unexercised stock options and unvested restricted stock units held by each of our non-employee directors on December 31, 2011:

<u>Name</u>	<u>Unvested Restricted Stock Units (#)</u>	<u>Total Option Awards Held (#)</u>	<u>Exercisable Option Awards (#)</u>
Robert A. Blair	1,000	21,668	13,334
Michael C. Child	1,000	30,001	21,667
John H. Dalton(1)	0	0	0
Henry E. Gauthier	1,500	25,001	13,333
William S. Hurley	1,000	33,335	25,001
Michael R. Kampfe(2)	0	25,000	0
William F. Krupke, Ph.D.	1,000	35,002	26,668

- (1) John H. Dalton served as a member of the Board and the Nominating and Corporate Governance Committee until May 2011.
- (2) Michael R. Kampfe was elected to the Board and became a member of the Compensation Committee in May 2011.

We also reimburse directors for all reasonable out-of-pocket expenses incurred for attending Board and committee meetings and director education programs. Non-employee directors do not receive any additional payments or perquisites.

Our certificate of incorporation limits the dollar amount of personal liability of our directors for breaches by them of their fiduciary duties. Our certificate of incorporation requires us to indemnify our directors to the fullest extent permitted by the Delaware General Corporation Law. We have also entered into indemnification agreements with all of our directors and we have purchased directors' and officers' liability insurance.

INFORMATION REGARDING STOCK OWNERSHIP

The following table provides information about the beneficial ownership of our common stock as of April 9, 2012 by:

- each person or entity known by us to own beneficially more than five percent of our common stock;
- each of the Named Executive Officers;
- each person who is a director or nominee; and
- all of our executive officers and directors as a group.

In accordance with SEC rules, beneficial ownership includes any shares for which a person or entity has sole or shared voting power or investment power and any shares for which the person or entity has the right to acquire beneficial ownership within 60 days after April 9, 2012 through the exercise of any option, warrant or otherwise. Percentage of beneficial ownership is based on 50,966,346 shares of common stock outstanding as of April 9, 2012. The contact address of all persons and entities in the table below (other than Columbia Wanger Asset Management, LLC) is in care of IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts 01540.

Name	Shares Owned	Right to Acquire Shares within 60 Days	Total	Percent
The Valentin Gapontsev Trust I(1)	15,283,002	—	15,283,002	30.0%
Valentin P. Gapontsev, Ph.D.(2)	8,980,933	—	8,980,933	17.6%
IP Fibre Devices (UK) Ltd.	7,353,002	—	7,353,002	14.4%
Columbia Wanger Asset Management, LLC(3)	4,218,150		4,218,150	8.3%
Robert A. Blair	33,538	21,001	54,539	*
George H. BuAbbud, Ph.D.	51,665	92,626	144,291	*
Michael C. Child	6,912	29,334	36,246	*
Henry E. Gauthier	10,000	24,834	34,834	*
William S. Hurley	15,000	32,886	47,886	*
Michael R. Kampfe	—	6,259	6,259	*
William F. Krupke, Ph.D.	2,000	26,035	28,035	*
Angelo P. Lopresti(4)	16,300,691	21,042	16,321,733	32.0%
Timothy P.V. Mammen	30,999	42,969	73,968	*
Alexander Ovtchinnikov, Ph.D.(4)	16,365,958	4,583	16,370,541	32.1%
Nicolai Platonov, Ph.D.(4)(5)	16,263,002	1,500	16,264,502	31.9%
Igor Samartsev(5)(6)	935,039	3,542	938,581	1.8%
Eugene Scherbakov, Ph.D.(4)(5)	16,263,002	15,919	16,278,921	31.9%
William S. Shiner	13,052	5,437	18,489	*
All executive officers and directors as a group (14 persons)	19,129,783	327,967	19,457,750	37.9%

* Less than 1.0%

- (1) Includes 7,353,002 shares beneficially owned by IP Fibre Devices (UK) Ltd. ("IPFD"), in which The Valentin Gapontsev Trust I (the "Gapontsev Trust I") has a 48% economic interest. The trustees of the Gapontsev Trust I are Drs. Ovtchinnikov, Platonov and Scherbakov and Mr. Lopresti.

- (2) Includes 7,353,002 shares beneficially owned by IPFD, of which Dr. Gapontsev is the managing director. Dr. Gapontsev has sole voting and investment power with respect to the shares held of record by IPFD. Dr. Gapontsev has a 5% economic interest in IPFD.
- (3) The address of Columbia Wanger Asset Management, LLC is 227 West Monroe Street, Suite 3000, Chicago, IL 60606.
- (4) Includes 15,283,002 shares beneficially owned by the Gapontsev Trust I, and 980,000 shares beneficially owned by the Valentin Gapontsev Trust II (the "Gapontsev Trust II"), of each of which Drs. Ovtchinnikov, Platonov and Scherbakov and Mr. Lopresti is a trustee. Each of these individuals disclaims beneficial ownership of the shares held by the Gapontsev Trust I and the Gapontsev Trust II. See note 1 above.
- (5) Does not include shares held by IPFD. Each such person has an 8% economic interest in IPFD but does not possess voting or investment power with respect to such interest.
- (6) Includes 550,000 shares held by a trust of which Mr. Samartsev's wife is the sole trustee. Mr. Samartsev disclaims beneficial ownership of the shares held in such trust.

PROPOSAL 1: ELECTION OF DIRECTORS

The stockholders are being asked to elect Dr. Gapontsev, Dr. Scherbakov, Mr. Samartsev, Mr. Blair, Mr. Child, Mr. Gauthier, Mr. Hurley, Mr. Kampfe and Dr. Krupke to terms ending with the annual meeting to be held in 2013, until a successor is elected and qualified or until his or her earlier death, resignation or removal. The Board nominated each of these individuals for election at the 2012 annual meeting of stockholders upon the recommendation of the Nominating and Corporate Governance Committee. Each nominee is currently a director of our company. For more information regarding the nominees for director, see *"Information Regarding the Board of Directors."*

The Board does not contemplate that any of the nominees will be unable to stand for election, but should any nominee become unable to serve or for good cause will not serve, all proxies (except proxies marked to the contrary) will be voted for the election of a substitute nominee nominated by the Board.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" ALL OF THE NOMINEES FOR DIRECTOR

AUDIT COMMITTEE REPORT

The primary role of the Audit Committee is to assist the Board of Directors in fulfilling its oversight responsibilities by reviewing the financial information proposed to be provided to stockholders and others, the adequacy of the system of internal control over financial reporting and disclosure controls and procedures established by management and the Board, and the audit process and the independent auditors' qualifications, independence and performance.

Management has primary responsibility for the financial statements and is responsible for establishing and maintaining the Company's system of internal controls and for preparation of the Company's financial statements. The Company's independent registered public accounting firm, Deloitte & Touche LLP, is responsible for performing an integrated audit of the Company's consolidated financial statements and the effectiveness of internal controls over financial reporting in accordance with standards of the Public Company Accounting Oversight Board (United States) (PCAOB) and issuing an opinion on the financial statements and the effectiveness of internal controls over financial reporting. The Audit Committee has met and held discussions with management and the Company's independent auditors, and has also met separately with the Company's independent auditors, without management present, to review the adequacy of the Company's internal controls, financial reporting practices and audit process.

The Audit Committee has reviewed and discussed the Company's audited consolidated financial statements for the year ended December 31, 2011 with management and the independent auditors. As part of this review, the Audit Committee discussed with Deloitte & Touche LLP the required communications described in PCAOB AU Section 380, *Communication with Audit Committees*, and those matters required to be reviewed pursuant to Rule 2-07 of Regulation S-X as well as the results of their audit of the effectiveness of internal controls over financial reporting.

The Audit Committee has received from Deloitte & Touche LLP a written statement describing all relationships between that firm and the Company that might bear on the auditors' independence, consistent with PCAOB Ethics and Independence Rule 3526, *Communications with Audit Committees Concerning Independence*. The Audit Committee has discussed the written statement with the independent auditors and has considered whether the independent auditors' provision of any other non-audit services to the Company is compatible with maintaining the auditors' independence.

Based on the above-mentioned reviews and discussions with management and the independent auditors, the Audit Committee recommended to the Board of Directors that the Company's audited consolidated financial statements be included in its Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC.

AUDIT COMMITTEE

William S. Hurley, *Chair*
Michael C. Child
Henry E. Gauthier

February 27, 2012

PROPOSAL 2: RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Deloitte & Touche LLP currently serves as our independent registered public accounting firm and audited our consolidated financial statements for the year ended December 31, 2011. Our Audit Committee has appointed Deloitte & Touche LLP to serve as our independent registered public accounting firm for 2012, and to conduct an integrated audit of our consolidated financial statements for the year ending December 31, 2012 and of our internal control over financial reporting as of December 31, 2012.

Our Audit Committee is responsible for selecting and appointing our independent registered public accounting firm, and this appointment is not required to be ratified by our stockholders. However, our Audit Committee has recommended that the Board submit this matter to the stockholders as a matter of good corporate practice. If the stockholders fail to ratify the appointment, the Audit Committee will reconsider whether to retain Deloitte & Touche LLP, and may retain that firm or another without re-submitting the matter to our stockholders. Even if the appointment is ratified, the Audit Committee may, in its discretion, direct the appointment of a different independent registered public accounting firm at any time during the year if it determines that such a change would be in the best interests of the Company and our stockholders.

We expect that representatives of Deloitte & Touche LLP will attend the meeting, will have an opportunity to make a statement if they desire to do so, and will be available to respond to appropriate questions.

Fees Paid to Deloitte & Touche. The fees for services provided by Deloitte & Touche LLP, member firm of Deloitte Touche Tohmatsu, and their respective affiliates (collectively, "Deloitte & Touche"), to the Company in the last three fiscal years were as follows :

<u>Fee Category</u>	<u>Fees</u>		
	<u>2011</u>	<u>2010</u>	<u>2009</u>
Audit fees	\$1,016,013	\$903,050	\$849,330
Audit-related fee	\$ 24,000	—	—
Tax fees	—	—	—
Total Fees	<u>\$1,040,013</u>	<u>\$903,050</u>	<u>\$849,330</u>

Audit fees. These fees comprise fees for professional services rendered in connection with the audit of the Company's consolidated financial statements that are customary under auditing standards generally accepted in the United States. Audit fees also include fees for consents and reviews related to SEC filings and quarterly services with respect to the preparation of our unaudited quarterly financial statements.

Audit-Related Fees. These fees comprise fees for services that are reasonably related to the performance of the audit or review of the Company's financial statements. For 2011, these services related to the audit of revenue transactions at our Russian subsidiary, required by our agreement with a minority shareholder in such subsidiary.

Tax fees. Fees for tax services would consist of fees for tax compliance services and tax planning and advice services. Tax compliance services are services rendered based upon facts already in existence or transactions that have already occurred to document, compute and obtain government approval for amounts to be included in tax filings and consisted of (i) federal, state and local income tax return assistance, (ii) sales and use, property and other tax return assistance and (iii) assistance with tax audits and appeals. Tax planning and advice are services rendered with respect to proposed transactions or that alter a transaction to obtain a particular tax result. Such services consisted of tax advice related to (i) certain internal legal restructuring actions and other intra-group restructuring actions, (ii) transfer pricing and (iii) other miscellaneous consultations.

Policy on Pre-Approval of Audit and Permissible Non-Audit Services. The Audit Committee pre-approves all audit and permissible non-audit services provided by the independent registered public accounting firm. These services may include audit services, audit-related services and tax services as well as specifically designated non-audit services that, in the opinion of the Audit Committee, will not impair the independence of the independent registered public accounting firm. Pre-approval is generally provided for each fiscal year, and any

pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent registered public accounting firm and our management are required to periodically report to the Audit Committee regarding the extent of services provided by the independent registered public accounting firm in accordance with this pre-approval, including the fees for the services performed to date. In addition, the Audit Committee also may pre-approve particular services on a case-by-case basis, as required.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE RATIFICATION OF DELOITTE & TOUCHE LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR 2012

INFORMATION REGARDING EXECUTIVES

The following table sets forth certain information regarding our executive officers as of March 31, 2012.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Valentin P. Gapontsev, Ph.D.	73	Chief Executive Officer and Chairman of the Board
Eugene Scherbakov, Ph.D.	64	Managing Director of IPG Laser
Timothy P.V. Mammen	42	Chief Financial Officer and Vice President
Angelo P. Lopresti	48	General Counsel, Secretary and Vice President
Alexander Ovtchinnikov, Ph.D.	51	Vice President-Components
George H. BuAbbud, Ph.D.	57	Vice President-Telecommunications Products
Igor Samartsev	49	Chief Technology Officer
William S. Shiner	70	Vice President-Industrial Markets

The biographies of Dr. Gapontsev, Dr. Scherbakov and Mr. Samartsev are presented on pages 8 and 9. The biographies of our other executive officers are presented below.

Timothy P.V. Mammen has served as our Chief Financial Officer since July 2000 and a Vice President since November 2000. Between May 1999 and July 2000, Mr. Mammen served as the Group Finance Director and General Manager of the United Kingdom operations for IPFD. Mr. Mammen was Finance Director and General Manager of United Partners Plc, a commodities trading firm, from 1995 to 1999 and prior to that he worked in the finance department of E.I. du Pont de Nemours and Company. Mr. Mammen holds an Upper Second B.Sc. Honours degree in International Trade and Development from the London School of Economics and Political Science and is a Chartered Accountant and a member of the Institute of Chartered Accountants of Scotland.

Angelo P. Lopresti has served as our General Counsel and Secretary and one of our Vice Presidents since February 2001. Prior to joining us, Mr. Lopresti was a partner at the law firm of Winston & Strawn from 1999 to 2001. Prior to that, he was a partner at the law firm of Hertzog, Calamari & Gleason from 1998 to 1999 and an associate there from 1991 to 1998. Mr. Lopresti holds a B.A. in Economics from Trinity College and a J.D. from the New York University School of Law.

Alexander Ovtchinnikov, Ph.D., has served as our Vice President, Components, since September 2005 and as Director of Material Sciences from October 2001 to September 2005. Prior to joining us, Dr. Ovtchinnikov was Material Science Manager of Lasertel, Inc., a maker of high-power semiconductor lasers, from 1999 to 2001. For 15 years prior to joining Lasertel, Inc., he worked on the development and commercialization of high power diode pump technology at the Ioffe Institute, Tampere University of Technology, Coherent, Inc. and Spectra-Physics Corporation. He holds an M.S. in Electrical Engineering from the Electrotechnical University of St. Petersburg, Russia, and a Ph.D. from Ioffe Institute of the Russian Academy of Sciences.

George H. BuAbbud, Ph.D., has served as our Vice President, Telecommunications Products, since July 2002. Prior to joining us, Dr. BuAbbud was Vice President and Chief Technical Officer for the Access Network Systems division of Marconi Communications, Inc., a maker of telecommunications systems, from 1999 to 2002. He holds a B.E. in Electrical Engineering from the American University of Beirut and an M.Sc. and a Ph.D. in Electrical Engineering from the University of Nebraska.

William S. Shiner has served as our Vice President-Industrial Markets since March 2007 and as Director of Industrial Markets since August 2002. Prior to joining us, Mr. Shiner was Vice President of Sales and Marketing for Coherent Industrial from 1980 to 1995 and Chief Operating Officer for Convergent Prima from 1995 to 2002. Mr. Shiner holds a B.S.E.E. and an M.B.A. from Northeastern University.

COMPENSATION COMMITTEE REPORT

The Compensation Committee of the Board has reviewed and discussed with management the Compensation Discussion and Analysis included in this proxy statement. Based on this review and discussion, the Committee recommended to the Board that the Compensation Discussion and Analysis be included in the Company's proxy statement for the Company's 2012 annual meeting of stockholders.

COMPENSATION COMMITTEE

Robert A. Blair, *Chair*
William S. Hurley
Michael R. Kampfe
William F. Krupke, Ph.D.

March 14, 2012

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

In this section, we describe the material components of our executive compensation program for our “Named Executive Officers” whose compensation is set forth in the Summary Compensation Table and other compensation tables contained in this proxy statement. In 2011, our Named Executive Officers were:

- Valentin P. Gapontsev, Ph.D., our Chairman and Chief Executive Officer;
- Timothy P.V. Mammen, our Vice President and Chief Financial Officer;
- Eugene Scherbakov, Ph.D., the Managing Director of IPG Laser GmbH, our subsidiary;
- Angelo P. Lopresti, our Vice President, General Counsel and Secretary; and
- Alexander Ovtchinnikov, Ph.D., our Vice President of Components.

Compensation Program Objectives and Principles

We believe that our success depends on the continued contributions of our executive officers. Our executive compensation programs are designed with the philosophy of attracting, motivating and retaining experienced and qualified executive officers and recognizing individual merit and overall business results.

The objectives of our compensation programs are to:

- attract and retain talented and experienced executives;
- motivate and reward executives whose knowledge, skills and performance are critical to achieving strategic business objectives;
- align the interests of our executive officers and stockholders by motivating executive officers to increase long-term stockholder value;
- incentivize future performance through both short-term and long-term financial incentives to build a sustainable company and foster the creation of stockholder value; and
- foster a shared commitment among executives through establishment of uniform company goals.

Our compensation philosophy is reflected in the following executive compensation design principles:

- In addition to a competitive base salary, a substantial portion of the executives’ potential cash compensation should be tied to a short-term incentive plan that rewards corporate and individual achievement of challenging performance goals; and
- Our long-term incentives should both retain our executives and provide them with an incentive to increase the value of the Company’s stock price. The Company uses a combination of restricted stock and stock options to achieve this goal.

<u>Compensation Element</u>	<u>Objective</u>
Base salary	Provide a competitive fixed component of cash compensation.
Short-term incentive plan	Offer a variable cash compensation opportunity earned based upon the level of achievement of challenging corporate goals, with additional compensation opportunity based upon individual performance.
Long-term incentives	Align long-term management and stockholder interests and strengthen retention with four-year vesting provisions. Service-based equity awards offer certainty and long-term retention while providing additional compensation opportunity to executives based upon increased stock price levels.
Benefit plans	Provide competitive employee benefits. We do not view this as a significant component of our executive compensation program.

Overview: Our Commitment to Pay-for-Performance

The Compensation Committee structured our executive compensation program to pay for performance and, over the long term, to provide compensation for our executive officers that is market-competitive and supports our retention efforts.

When the 2011 executive compensation program was designed in January and February 2011, industry conditions indicated that the demand for our fiber lasers in the prior year was continuing into 2011. Our executive compensation structure for 2011 featured significant performance-based components tied to objectives that were considered challenging in light of anticipated industry conditions.

2011 Business Highlights

2011 was another record year for IPG.

The Company also performed well by several measures including sales growth, earnings growth and gross margin growth. Our strong performance is largely attributable to factors specific to the Company, such as our market leadership in fiber lasers, adding original equipment manufacturers in cutting and welding for high power materials processing applications and introduction of new products and applications, assisted by our ongoing significant investments in technology, production and application development, our ability to meet customer delivery demands and leveraging our vertically integrated business model.

Our 2011 performance is highlighted by the following achievements:

- The Company recorded \$475 million in revenues, which is the highest level of revenues for any fiscal year in our history, representing a year-over-year growth rate of 59%;
- Our net income more than doubled to \$118 million in 2011 from \$54 million in 2010;
- The Company posted record levels of gross margin percentage (54.1%) for the year, reflecting the leverage in our vertically integrated business model and execution of our plans to reduce component costs;
- The Company increased its cash and cash equivalents to over \$205 million at December 31, 2011, while investing heavily during 2011 in property, plant and equipment so that we are positioned well for future growth in demand for our industry-leading products; and
- The Company sustained its market leadership in its core fiber laser business and extended its penetration into new large-scale laser applications, namely cutting and welding.

For more information about our business, please read “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Annual Report on Form 10-K filed with the Securities and Exchange Commission (the “SEC”) on February 27, 2012.

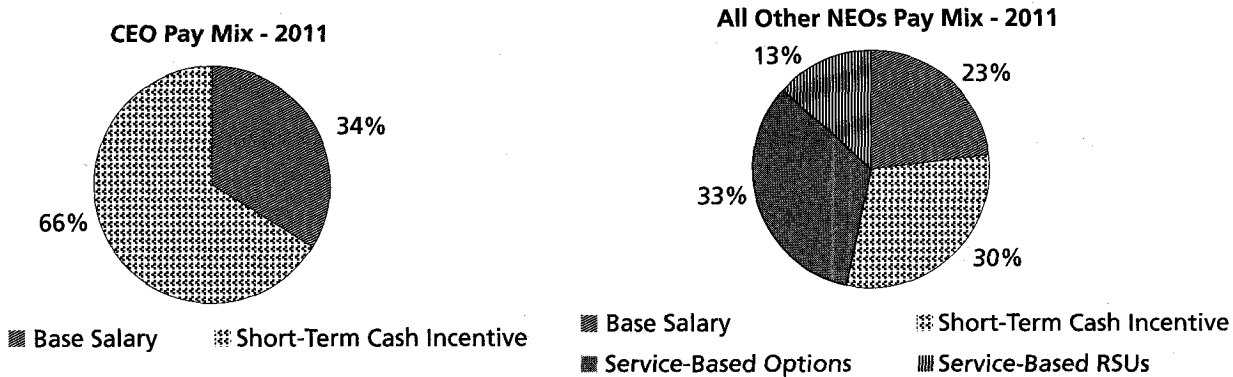
Pay-for-Performance

We structure our executive compensation program so that a meaningful percentage of compensation is tied to the achievement of high levels of Company performance. The payouts under our 2011 compensation program reflect the Company’s strong financial and strategic performance. We use total revenues and earnings before interest, as adjusted for certain items (“adjusted EBIT”), as the key performance metrics in our compensation program as we believe that they reflect a number of important competitive and business elements such as product acceptance and profitability and are therefore excellent barometers of our overall performance. For 2011, our total sales and adjusted EBIT were \$475 million and \$187 million, respectively, both of which were considerably higher than the target levels of \$390 million and \$132 million, respectively, that we had set for the year. These targets were set such that achievement of the targets would have required record-setting performance by the Company.

Our 2011 annual short-term incentive plan was structured to pay out 100% of our CEO’s base salary and 67% of the other executives’ base salaries if (i) the Company successfully achieved both target levels of financial performance and (ii) the executives achieved the highest levels of individual performance. Based on the

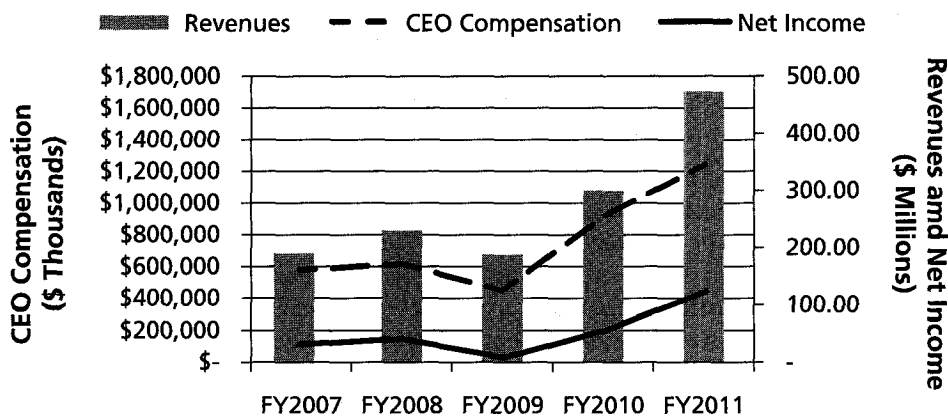
Company's 2011 total revenues, adjusted EBIT and individual performance levels (as further described under "Components of Compensation in 2011 – Short-Term Cash Incentives" below), our 2011 short-term incentive bonus plan paid bonuses equal to approximately 195% of our CEO's base salary and 130% of the other executives' base salaries.

To illustrate our pay-for-performance philosophy, the following charts reflect the portions of our executive officers' actual compensation for 2011 represented by each of the major elements of our compensation program – base salary paid, 2011 short-term cash incentives (at actual amount earned), option awards and restricted stock units with only service-based vesting criteria (valued at their grant-date fair value):



In each case, a significant majority of the executives' overall compensation is derived from the performance-based or long-term service-based components of our program. Our CEO does not receive grants of equity because of his significant level of ownership of Company common stock.

Our Chief Executive Officer's compensation over the past five fiscal years further reflects the effectiveness of our pay-for-performance structure. The Company's strong operating results in four of the past five years have resulted in corresponding levels of CEO compensation. Conversely, in fiscal year 2009, when the global economic downturn significantly impaired our financial results, Dr. Gapontsev received only his base salary for that year, as no bonus was earned based on the Company's results, notwithstanding management's effectiveness during that challenging period in maintaining the employee base so that we were well-positioned to take advantage of the subsequent market recovery in 2010 and 2011. The following table demonstrates our pay-for-performance model by tracking Dr. Gapontsev's actual compensation in each of the last five fiscal years against Company revenues and net income:



Corporate Governance Highlights Relating to Compensation

We endeavor to maintain good governance standards including the oversight of our executive compensation policies and practices. Under the direction of the Compensation Committee, the following policies and practices were in effect during 2011:

- IPG has only one-year employment agreements for executives, except for the Chief Executive Officer, who has a two-year employment agreement;
- no supplemental executive retirement plans (SERPs) or other nonqualified plans for executives;
- no payments are automatically made to executives upon a change in control (“single-trigger”);
- no tax gross-up payments for change in control payments under Internal Revenue Code Section 280G;
- no tax gross-up payments for executive perquisites (which are minimal, in any event);
- no severance payments with respect to “for Cause” terminations or resignations other than for Good Reason;
- no perquisites for former or retired executives;
- no unreimbursed personal use of corporate aircraft, personal security services or executive life insurance;
- limits on award payouts under our annual short-term cash incentive plan;
- stock ownership guidelines are in place for our executive officers and directors; and
- only the Compensation Committee, comprised solely of independent directors meeting applicable independence standards, may approve equity grants.

Role of the Compensation Committee. The Compensation Committee determines, approves and administers the compensation programs for our executive officers, including our Named Executive Officers. Our Compensation Committee is also responsible for making recommendations to the Board with respect to the adoption of equity plans and certain other benefit plans. The Compensation Committee may delegate authority whenever it deems appropriate, but it did not do so in 2011.

Our Compensation Committee’s policy is to set executive officer pay in accordance with the objectives of the Company’s compensation programs as described above. In our view, the Company’s executive compensation program provides an overall level of compensation opportunity that is competitive with other companies in the laser source and photonics industry, as well as with a broader group of technology companies of comparable size and complexity that have similar growth rates and international scope. Actual compensation levels may be greater or less than median compensation levels provided by similar companies based upon annual and long-term Company performance, as well as individual performance, contributions, skills, experience and responsibilities.

During 2011, the Compensation Committee was comprised of independent directors at all times. Mr. Blair, Chair, Mr. Hurley and Dr. Krupke served on the Committee for the entire year. After his election to the Board, Mr. Kampfe became a Committee member in May 2011. Mr. Blair has chaired the Committee since 2006.

Role of Executive Officers in Compensation Decisions. The Compensation Committee regularly meets with Dr. Gapontsev, our Chief Executive Officer, to obtain recommendations with respect to the compensation programs, practices and packages for our Named Executive Officers. Additionally, Mr. Mammen, our Chief Financial Officer, and Mr. Lopresti, our General Counsel, are regularly invited to meetings of the Compensation Committee or otherwise asked to assist the Committee. Such assistance includes providing financial and compensation information and analysis for the Compensation Committee and its compensation consultant, taking minutes of the meeting or providing legal advice, developing compensation proposals for consideration, and providing insights regarding our employees (executive and otherwise). The Named Executive Officers attend portions of Compensation Committee meetings when requested, but leave the meetings as appropriate when matters that will potentially affect them personally are discussed. Many meetings of the Compensation Committee are not attended by management. From time to time, outside legal counsel and the compensation consultant attend Compensation Committee meetings. The Compensation Committee makes decisions regarding Dr. Gapontsev’s compensation without him present.

Role of Compensation Consultant. The Compensation Committee engaged Radford, an independent compensation consultant, to conduct a comprehensive review and analysis of our executive compensation program and to make recommendations in 2011. The compensation consultant provides the Compensation Committee with an independent evaluation of executive compensation, and is available as needed by the Compensation Committee to provide advice and counsel. Radford serves at the discretion of the Compensation Committee. Neither Radford nor Aon, Radford's parent company, does any other work for the Company. The Compensation Committee believes that there are no actual or potential conflicts of interest. The Compensation Committee authorizes the compensation consultant to confer with management for perspective on the impact of compensation recommendations.

Pay Positioning Strategy

We strive to position the midpoint of the Company's target compensation ranges near the 50th percentile of the target compensation of our peer group, resulting in targeted total compensation that is competitive within our labor market for performance that meets the objectives established by the Compensation Committee. An individual's actual salary, non-equity incentive compensation opportunity and equity compensation may fall below or above the target position based on the individual's experience, seniority, skills, knowledge, performance and contributions as well as the Company's performance. These factors are weighed individually by the Compensation Committee in its judgment, and no single factor takes precedence over others nor is any formula used in making these decisions. The Chief Executive Officer's review of the performance of his direct reports is carefully considered by the Compensation Committee in making individual compensation decisions.

In analyzing our executive compensation program relative to this target market positioning, the Compensation Committee utilizes a comparative analysis of the compensation of our executive officers measured against a group of industry peer companies selected with the assistance of Radford and management input. For 2011, the industry peers were:

- | | | |
|--|---|---------------------------------------|
| • II-VI Incorporated | • Brooks Automation, Inc. | • Cognex Corporation |
| • Coherent, Inc. | • Cymer Inc. | • Electro Scientific Industries, Inc. |
| • Evergreen Solar Inc. | • EXFO Electro-Optical Engineering Inc. | • FEI Company |
| • FormFactor, Inc. | • Hittite Microwave Corporation | • Measurement Specialties, Inc. |
| • Newport Corporation | • Opnext, Inc. | • Rofin-Sinar Technologies Inc. |
| • Varian Semiconductor Equipment Associates Inc. | • Veeco Instruments Inc. | |

The Compensation Committee reviews this peer group annually to ensure that the comparisons are meaningful. The peer group in 2011 was the same as in 2010. Several factors were considered in selecting the peer group used in 2011, the most important of which were:

- industry (primarily laser, photonics, semiconductor, optical components and related device companies); and
- revenue and employee levels (primarily companies with between \$220 million and \$830 million in annual revenues, and between 350 and 6,800 employees).

The Compensation Committee believes that companies that meet these criteria are our most likely competitors for executive talent in our labor markets. Radford also supplements its peer analysis with the data from high-technology public company participants in the Radford Global Technology Survey having comparable revenue levels. No individual company data is reported from this Survey.

Components of Compensation in 2011

The principal components of our executive officer compensation during 2011 were: base salary, short-term cash incentives, long-term equity-based incentive awards, severance benefits, retirement savings benefits provided under a 401(k) plan and executive perquisites and benefit programs generally available to other employees.

These components were selected because the Compensation Committee believes that a combination of salary, incentive pay, severance and retirement savings benefits and perquisites is necessary to help us attract and retain the executive talent on which our success depends. The annual cash incentives are designed to allow the Compensation Committee to reward performance over a fiscal year and to provide an incentive for executives to appropriately balance their focus on short-term and long-term strategic goals. The fixed components, including salary, severance and retirement savings benefits and perquisites, are structured to provide a sufficient level of compensation for our executives relative to both immediate and long-term income needs. The Compensation Committee believes that, when taken together, these components are effective in achieving the objectives of our compensation program and philosophy and are reasonable relative to our strategy of managing total compensation near the 50th percentile of market practices.

The Compensation Committee annually reviews the entire compensation program with the assistance of its compensation consultant and outside legal counsel. However, the Compensation Committee may at any time review one or more components as necessary or appropriate to ensure such components remain competitive and appropriately designed to reward performance. In setting compensation levels for a particular Named Executive Officer, the Committee considers both individual (as described above) and corporate factors.

Base Salary. We provide base salary to our Named Executive Officers and other employees to compensate them for services rendered on a day-to-day basis during the fiscal year. Unlike short-term cash incentives and long-term equity incentives, base salary is not subject to performance risk. The Compensation Committee reviews information provided by its compensation consultant and considers the experience, skills, knowledge and responsibilities of the executive and the individual's performance assessment provided by the Chief Executive Officer to assist it in evaluating base salary for each Named Executive Officer. With respect to the Chief Executive Officer, the Compensation Committee additionally considers the performance of the Company as a whole.

Based upon the information provided by its compensation consultant, the Compensation Committee approved merit increases of 5% for 2011 to the base salaries of the Named Executive Officers from prior year salary levels, except that Mr. Mammen's salary increased 10% in 2011.

In February 2012, the Compensation Committee increased the salaries of the Named Executive Officers based upon an assessment conducted by Radford and the increasing scale of the Company's operations. The Compensation Committee approved an increase of 17% to the base salary of Dr. Gapontsev to bring his salary in line with the 25th percentile for CEOs from the peer group, and an increase of 5% for the other Named Executive Officers.

Short-Term Incentive Plan. To focus each executive officer on the importance of the performance of the Company, a significant portion of the individual's potential short-term compensation is in the form of annual cash incentive pay that is tied to the achievement of goals established by the Compensation Committee.

Our Named Executive Officers participate in our Senior Executive Short-Term Incentive Plan (the "STIP"). The STIP is administered by the Compensation Committee, which has the discretion to determine the type of award, whether cash or non-cash, granted under the STIP. The STIP emphasizes company-wide performance goals in order to foster a shared commitment among executives. Generally, award levels for executives are the same percentage of salary, except for the Chief Executive Officer whose target award is at a greater percentage of salary than the other officers for achievement of the same performance goals. The Compensation Committee determines who is eligible to receive awards under the STIP, establishes performance goals and objectives for executives, establishes target awards for each participant for the relevant performance period, and determines the percentage of the target award that should be allocated to the achievement of each of the chosen performance goals in consultation with the Chief Executive Officer with respect to other executive officers.

For 2011, the Compensation Committee identified two financial performance measures: net sales and adjusted EBIT (excluding equity-based compensation expenses and expenses for approved litigation matters), each as determined under the STIP, and assigned a 50% weighting factor to each financial performance goal. The Compensation Committee chose to focus on revenue growth and pretax profits so that our executive officers would be incentivized to deliver the types of growth that benefit our stockholders, namely increasing sales and profitability.

Upon the achievement of the objectives for each performance measure determined by the Compensation Committee, the Chief Executive Officer could receive a cash incentive payment ranging from 18.8% to 112.5% of his base salary, and other participants in the STIP could receive a cash incentive payment ranging from 12.5% to 75.0% of their respective base salaries, based upon achievement of the minimum to maximum objectives for both measures. If the financial performance exceeds one or more of the maximum objectives, the incentive payments to the executive would increase as determined by linear interpolation subject to limits on payouts discussed below. Consistent with our pay-for-performance philosophy, no cash incentive payments would be made if the minimum objectives established by the Compensation Committee in 2011 were not met.

While objectives were intended to be achievable by the Company, a maximum bonus would require very high levels of Company performance. The Compensation Committee believes that the goals are reasonably difficult to achieve, as demonstrated by the fact that the Company had only once before 2011 achieved the maximum payout. The Compensation Committee set minimum and maximum targets for net sales of \$351 million and \$421 million, respectively, representing annual growth levels of 17% to 41% from the prior year. The minimum and maximum targets for adjusted EBIT were set from \$114 million to \$156 million, representing increases of 29% to 76% from the prior year.

The Chief Executive Officer and the other Named Executive Officers were also eligible to receive awards of up to 25.0% and 16.7%, respectively, of their base salaries under the STIP in 2011, based upon their respective individual performances. The individual goals and objectives for the Chief Executive Officer included additional operational and strategic targets.

The target award for the Chief Executive Officer was 100.0% of his base salary and 67% of the respective base salaries for the other participants. The financial objectives were the same for all executive officers. The range of possible payout amounts for 2011 under the STIP for achievement of financial objectives for each Named Executive Officer is shown below in the Grants of Plan-Based Awards table. The maximum possible payouts under the STIP for both financial and individual performance measures are 225% of the target award for the Named Executive Officers.

The Company's record financial performance for 2011 exceeded financial targets set by the Compensation Committee. The Company achieved net sales of \$475 million and adjusted EBIT of \$187 million. These results represented a 59% increase in net sales and a 111% increase in adjusted EBIT over 2010 levels. The Compensation Committee awarded the Chief Executive Officer a cash incentive payment equal to 195% of his base salary. The other Named Executive Officers earned cash incentive payments equal to 130% of their respective base salaries. The limits on payouts of 225% of the target awards for Named Executive Officers were not reached in 2011. The awards under the STIP for 2011 are set forth in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table below.

The Compensation Committee may make adjustments to our overall corporate performance goals and the ways that our actual performance results are calculated that may cause differences between the numbers used for our performance goals and the numbers reported in our financial statements. These adjustments may exclude all or a portion of both the positive or negative effect of external events that are outside the control of our executives. The Compensation Committee made no adjustments in 2011.

Discretionary Short-Term Cash Incentive Awards. The Compensation Committee may in its discretion award discretionary bonuses for exceptional performance of an executive. For 2011, the Committee exercised this discretion and awarded Mr. Lopresti a bonus of \$31,997 in recognition of his efforts in managing legal matters involving the Company.

Total Short-Term Cash Compensation. The Compensation Committee targets total cash compensation (base salary plus short-term cash incentives) near the 50th percentile of the target compensation of our peer group. In 2011, total cash compensation targets for the Named Executive Officers were aligned on average with the 50th percentile of the target compensation of the peer group.

Long-Term Equity-Based Incentives. The goal of our equity-based award program is to provide employees and executives with the perspective of an owner with a long-term financial stake in our success, further increasing alignment with stockholders. Long-term incentive awards also incent employees to stay with us for

longer periods of time, which in turn provides us with greater stability and directly links compensation to the long-term performance of the Company. In addition, these awards are less costly to us in the short-term than cash compensation. We review long-term equity incentives for our Named Executive Officers and other executives annually.

For our Named Executive Officers, our equity-based award program is based on annual grants. We have traditionally used service-based stock options as equity compensation because stock options provide a relatively straightforward incentive for our executives. In 2010, the Compensation Committee conducted an analysis of the types of equity awards granted by the peer group and found that a majority of the companies in the peer group grant restricted shares or restricted stock units to their respective executives. Based upon this analysis, the Compensation Committee determined to substitute service-based restricted stock units for a portion of the annual equity compensation grants to the Named Executive Officers in 2010, with the same vesting terms as stock options, in part to diversify the equity incentives we provide.

Historically, our Chief Executive Officer has not received annual grants of stock options or restricted stock units because, as the Company's founder and holder of a large number of our shares, he has the perspective of an owner with a significant financial awards stake in the Company's success. For over the last five years, the Chief Executive Officer did not receive any equity compensation awards.

In 2011, the Compensation Committee targeted granting equity compensation near the 50th percentile of the target compensation of our peer group, balancing the perspective of delivering competitive compensation based upon Black-Scholes option pricing values and as a percentage of the Company. In 2011, the Compensation Committee analyzed several aspects of the equity grant program, including (i) the "in the money" value, the degree to which executives have incentives to remain employed by the Company through unvested option values, and (ii) the aggregate equity usage in terms of (a) annual usage, typically called burn rate, and (b) cumulative equity delivery, typically called overhang, to determine the dilutive effect of equity awards on investors. The majority of our outstanding equity holdings were allocated to unvested shares in the aggregate, and all of our executives had a minimum of four years' worth of annual award values in unvested equity value. Based upon this information, Radford advised us that our equity program provides strong retention incentives. Also, Radford found that the one- and three-year burn rates for the Company were low when compared to the peer group, and that the 2009 overhang rate was at the 25th percentile of the peer group. In 2011, the Compensation Committee approved the grant of 78,600 service-based options and 13,555 service-based restricted stock units to our Named Executive Officers. These equity awards vest between four to five years after the grant date and provide a strong incentive for executives to remain employed by us and to focus on increasing our financial performance over the long-term. Consistent with our pay-for-performance philosophy, the service-based stock option awards will have no value unless the stock price increases after the grant date and the value of the restricted stock units is tied to the value of our stock. Consistent with past practices as explained above, the Chief Executive Officer did not receive any equity compensation award in 2011.

Equity Grant Process. The Compensation Committee adopted an equity grant policy as follows:

- only the Compensation Committee has the authority to approve equity grants;
- grants made by the Compensation Committee occur only after discussion at a meeting of the Compensation Committee;
- equity award grants ordinarily are made by the Compensation Committee only during an open trading window period under our insider trading policy;
- the grant date ordinarily is within five business days following the first day of the open trading window period, or such other date as the Compensation Committee determines; and
- the exercise price (if applicable) for all equity awards is the closing price of our stock on the date of grant and stock options are granted with an exercise price of no less than the closing price of our stock on the date of grant.

The Compensation Committee considers the aggregate equity usage by the Company compared to peer companies. Measures which are considered include total options and restricted stock units granted as a

percentage of total shares issued and outstanding, total options and unvested restricted stock units outstanding as a percentage of total shares issued and outstanding, and total options and unvested restricted stock units outstanding plus shares available for future grant as a percentage of total shares issued and outstanding.

Severance Benefits. The Compensation Committee believes that severance benefits are an important element of the executive compensation package. The severance benefits we offer assist us in recruiting and retaining talented individuals and are consistent with the severance benefits offered by our peer group. At the request of the Compensation Committee, Radford examined the severance benefits provided by the employment agreements then in effect with the Named Executive Officers and compared them to the severance benefits provided by the peer group. The severance benefits reviewed included termination provisions, change in control provisions, cash severance payments, benefits continuation, acceleration of equity awards, non-competition and non-solicitation restrictions. Based upon this review, the Compensation Committee approved new employment agreements for the Named Executive Officers in 2008, which are summarized below in the section entitled "Employment Agreements." The severance provisions of our employment agreements are summarized below in the section entitled "Potential Payments Upon Termination or Change in Control."

Retirement Savings Plan. Executive officers in the United States are eligible to participate in our 401(k) retirement plan on the same terms as all other U.S. employees. Our 401(k) retirement plan is a tax-qualified plan and therefore is subject to certain Internal Revenue Code limitations on the dollar amounts of deferrals and Company contributions that can be made to plan accounts. These limitations apply to our more highly-compensated employees (including the Named Executive Officers). We made matching contributions at a rate of 50% of eligible contributions under the 401(k) retirement plan to our employees, including Named Executive Officers, that participate in the plan as set forth in the Summary Compensation Table. Our executives outside of the United States participate in government-sponsored retirement programs. We do not maintain a supplemental executive retirement plan (SERP) or a non-qualified deferred compensation plan for our executives or directors.

Other Compensation. All of our executives are eligible to participate in our employee benefit plans, including medical, dental, life and disability insurance, vacation and employee stock purchase plans. These plans generally are available to all salaried employees and do not discriminate in favor of executive officers. Benefits are intended to be competitive with the overall market in order to facilitate attraction and retention of high-quality employees. Subject to local customs and the international nature of our business and management, it is generally our policy not to extend significant perquisites to our executives that are not generally available to our employees. In 2011, the Compensation Committee reviewed the executive perquisites in comparison to the peer group and made no changes. The Company provides Dr. Scherbakov with an automobile, as it does to other high-ranking employees in Germany.

Other Factors Affecting Compensation

Tax Deductibility Under Section 162(m). Section 162(m) of the Internal Revenue Code of 1986, as amended, limits the deductibility for federal income tax purposes of certain compensation paid in any year by a publicly held corporation to its chief executive officer and its three other most highly compensated officers other than its chief financial officer to \$1 million per executive (the "\$1 million cap"). The \$1 million cap does not apply to "performance-based" compensation as defined under Section 162(m). Prior to 2011, none of our executive officers has received annual compensation in an amount that would be subject to limitation under Section 162(m). It is intended that stock option awards made under the Company's 2006 Incentive Compensation Plan qualify as "performance-based" compensation for purposes of Section 162(m). The Compensation Committee's policy with respect to Section 162(m) is to make a reasonable effort to cause compensation to be deductible by the Company while simultaneously providing our executive officers with appropriate rewards for their performance.

Accounting Considerations. We consider the accounting implications of all aspects of its executive compensation program. In addition, accounting treatment is just one of many factors impacting plan design and pay determinations. Our executive compensation program is designed to achieve the most favorable accounting and tax treatment possible as long as doing so does not conflict with intended plan design or program objectives.

Advisory Vote on Executive Compensation

Say-on-Pay Advisory Votes. We conducted our first advisory vote on executive compensation last year at our 2011 annual meeting of stockholders. While this vote was not binding on the Company, our Board or Compensation Committee, we believe that it is important for our stockholders to have an opportunity to vote on this proposal as a means to express their views regarding our executive compensation philosophy, our compensation policies and programs, and our decisions regarding executive compensation, all as disclosed in our proxy statement.

Our stockholders overwhelmingly approved our executive compensation structure in our first “say-on-pay” advisory vote at our 2011 annual meeting of stockholders, voting 40,928,468 shares (99.2%) in favor of our executive compensation structure compared to 305,747 shares (0.7%) against with 43,328 shares (0.1%) abstaining. Because a substantial majority of our stockholders approved the compensation program described in our 2011 proxy statement, the Compensation Committee did not implement changes to our executive compensation program as a direct result of the stockholders’ advisory vote. At our stockholders meeting in 2011, the advisory proposal to hold “say-on-pay” advisory votes every three years received the greatest amount of votes. Accordingly, the next “say-on-pay” advisory vote will be held in 2014.

In addition to the periodic advisory vote on executive compensation, we are committed to ongoing engagement with our stockholders on executive compensation and corporate governance issues. These engagement efforts take place throughout the year through meetings, telephone calls and correspondence involving our senior management and representatives of our stockholders. The Compensation Committee carefully considers feedback from our stockholders regarding our executive compensation program, including the results of our stockholders’ advisory vote on executive compensation. Stockholders are invited to express their views to the Compensation Committee as described in this proxy statement under the heading “Corporate Governance—Stockholder Communication with our Board of Directors.”

Summary Compensation Table

The following table sets forth information regarding compensation earned by our Chief Executive Officer, our Chief Financial Officer and our three other most highly compensated executives:

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(1)	Non-Equity Incentive Plan Compensation (\$)(2)	All Other Compensation (\$)(3)	Total (\$)
Valentin P. Gapontsev, Ph.D., . . .	2011	418,167	—	—	—	808,306	16,261	1,242,734
Chief Executive Officer and	2010	393,735	—	—	—	512,682	15,879	922,296
Chairman of the Board(4)	2009	389,025	—	—	—	—	62,579	451,604
Timothy P.V. Mammen,	2011	324,500	—	198,912	511,080	421,623	7,890	1,464,005
Chief Financial Officer	2010	295,000	—	69,213	180,144	295,000	7,890	847,247
and Vice President	2009	289,648	—	—	147,831	—	6,140	443,619
Eugene Scherbakov, Ph.D.,	2011	376,187	—	176,602	449,561	488,452	32,576	1,523,378
Managing Director of IPG	2010	340,685	—	69,213	180,144	340,451	33,220	963,713
Laser and Director(4)	2009	351,437	—	—	130,093	—	25,426	506,956
Angelo P. Lopresti,	2011	309,750	31,997(5)	176,602	449,561	402,458	8,160	1,378,528
General Counsel, Secretary	2010	295,000	—	69,213	180,144	295,000	8,160	847,517
and Vice President	2009	289,648	—	—	118,265	—	6,140	414,053
Alexander Ovtchinnikov, Ph.D., .	2011	288,750	—	176,602	449,561	375,173	8,592	1,298,678
Vice President — Components	2010	275,000	—	69,213	180,144	275,000	7,897	807,254
	2009	269,512	—	—	130,093	—	6,410	406,015

- (1) Valuation based on the fair value of such award as of the grant date determined pursuant to ASC Topic 718. The assumptions that we used with respect to the valuation of restricted stock unit and stock option awards are set forth in Note 2 to our Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 27, 2012.

- (2) Represents amounts earned under our STIP for services rendered in 2011, 2010, and 2009, respectively.
- (3) The amount in 2011 for Dr. Gapontsev consists of (i) \$11,125 in premiums paid for group term life insurance and (ii) \$5,136 in health care premiums paid in Germany. Amounts for Messrs. Mammen and Lopresti and Dr. Ovtchinnikov include matching contributions to retirement accounts under our 401(k) plan and our payment of group term life insurance premiums. The amount for Dr. Scherbakov reflects the expense of an automobile provided by us.
- (4) Portions of the amounts paid to Dr. Gapontsev and Dr. Scherbakov were denominated in Euros and Rubles. These were translated into U.S. Dollars at the average daily exchange rates for 2011, 2010 and 2009, respectively. As a result of compensation being paid in one or more currencies which fluctuate against the U.S. Dollar, the amount of salary paid may vary slightly from the salary stated in an employment agreement. Salary paid to Dr. Gapontsev in 2011 in excess of the salary set forth in his employment agreement amounting to approximately \$3,400 will be offset against his 2012 salary payments.
- (5) The Compensation Committee awarded Mr. Lopresti a discretionary bonus. See "Compensation Discussion and Analysis-Components of Compensation in 2011-Discretionary Short-Term Cash Incentive Awards" above.

Employment Agreements

We have employment agreements with each of the executives named in the table above. The employment agreements expire on December 31, 2012. In the event of a change in control, the agreements would be extended to expire on the second anniversary of such change in control.

The employment agreements set the annual base salaries in 2011 for the Named Executive Officers as follows: \$414,750 for Dr. Gapontsev, €269,850 for Dr. Scherbakov, \$324,500 for Mr. Mammen, \$309,750 for Mr. Lopresti and \$288,750 for Dr. Ovtchinnikov. For 2012, the annual base salaries increase to \$472,000 for Dr. Gapontsev, €283,350 for Dr. Scherbakov, \$340,725 for Mr. Mammen, \$325,200 for Mr. Lopresti and \$303,000 for Dr. Ovtchinnikov. The agreements entitle these executive officers to participate in bonus plans, standard insurance plans such as life, short-term disability and long-term disability insurance and retirement benefits, such as the 401(k) plan and equity award plans described above, on similar terms and on a similar basis as such benefits are available to executives at similar levels within the Company. Each of these executive officers also entered into a non-competition agreement with the Company in 2008 that prohibits each of them from competing with the Company for a period of one year after the termination of his employment with the Company for any reason and from hiring or attempting to hire the Company's employees or soliciting customers or suppliers of the Company for a period ending eighteen months following the termination of his employment for any reason. Each of the officers is entitled to receive his base salary for the period during which the Company enforces the non-competition provisions of the agreement but not for more than one year following the termination of his employment. The severance provisions of the agreements are summarized below in the section titled "Potential Payments Upon Termination or Change in Control."

Grants of Plan-Based Awards Table

The following table sets forth information regarding plan-based awards to our Named Executive Officers in 2011:

Name	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards (\$)(1)			All Other Stock Awards: Number of Shares of Stock or Units(2)	Option Awards: Number of Securities Underlying Options (2)	Exercise or Base Price of Option Awards (\$ / Sh)	Grant Date Fair Value of Stock and Option Awards (\$)(3)
		Threshold	Target	Maximum				
Valentin P. Gapontsev, Ph.D.	2/25/2011	77,766	311,063	933,188	—	—	—	—
Timothy P.V. Mammen	2/25/2011	40,563	162,250	486,774	—	—	—	—
	2/25/2011	—	—	—	3,700	—	—	198,912
Eugene Scherbakov, Ph.D.	2/25/2011	—	—	—	—	21,600	53.76	511,272
	2/25/2011	65,262	261,067	563,052	—	—	—	—
	2/25/2011	—	—	—	3,285	—	—	176,602
Angelo P. Lopresti	2/25/2011	—	—	—	—	19,000	53.76	449,730
	2/25/2011	38,719	154,875	464,648	—	—	—	—
	2/25/2011	—	—	—	—	—	—	176,602
Alexander Ovtchinnikov, Ph.D. . . .	2/25/2011	—	—	—	3,285	19,000	53.76	449,730
	2/25/2011	36,094	144,375	433,147	—	—	—	—
	2/25/2011	—	—	—	3,285	—	—	176,602
	2/25/2011	—	—	—	—	19,000	53.76	449,730

- (1) Amounts shown represent potential amounts that were available under the STIP for 2011 for achievement of financial performance measures, except that the possible payouts in the “Maximum” column represent the maximum permitted payout under the STIP in 2011 for both financial and individual performance measures. The performance goals used in determining STIP payments are discussed in the “Compensation Discussion and Analysis” above. Actual amounts paid for 2011 performance are shown in the “Non-Equity Incentive Plan Compensation” column in the Summary Compensation Table above.
- (2) The amounts listed reflect restricted stock units and stock options granted under our 2006 Incentive Compensation Plan and are described in the Outstanding Equity Awards Table below.
- (3) The value of an option award is based on the fair value of such award as of the grant date determined pursuant to ASC Topic 718. The assumptions that we used with respect to the valuation of restricted stock unit and stock option awards are set forth in Note 2 to our Consolidated Financial Statements in our Annual Report on Form 10-K filed with the SEC on February 27, 2012. The option exercise price has not been deducted from the amounts indicated above. Regardless of the value placed on a restricted stock unit or stock option on the grant date, the actual value of the restricted stock unit or option will depend on the market value of our common stock at such date in the future when the restricted stock unit vests or the option is exercised.

Outstanding Equity Awards Table

The following table provides information regarding unexercised stock options and unvested restricted stock units held by each of our Named Executive Officers as of December 31, 2011:

Name	Grant Date	Securities Underlying Unexercised Options (#) Exercisable	Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price \$(1)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested \$(2)
Valentin P. Gapontsev, Ph.D.	—	—	—	—	—	—	—
Timothy P.V. Mammen	9/22/2005	3,333	—	\$ 1.88	9/22/2015	—	—
	4/18/2006	13,334	—	\$ 5.37	4/18/2016	—	—
	5/9/2008	—	25,000(3)	\$19.69	5/8/2018	—	—
	2/26/2009	13,281	—	\$ 8.26	2/25/2019	—	—
	2/26/2009	6,250	18,750(4)	\$ 8.26	2/25/2019	—	—
	2/26/2010	—	26,250(5)	\$15.82	2/25/2020	—	—
	2/26/2010	—	—	—	2/25/2020	4,375(5)	148,181
	3/1/2011	—	21,600(6)	\$53.76	2/28/2021	—	—
	3/1/2011	—	—	—	2/28/2021	3,700(6)	125,319
Eugene Scherbakov, Ph.D.	4/18/2006	13,334	—	\$ 5.37	4/18/2016	—	—
	5/9/2008	—	22,000(3)	\$19.69	5/8/2018	—	—
	2/26/2009	1,461	—	\$ 8.26	2/25/2019	—	—
	2/26/2009	5,500	16,500(4)	\$ 8.26	2/25/2019	—	—
	2/26/2010	—	26,250(5)	\$15.82	2/25/2020	—	—
	2/26/2010	—	—	—	2/25/2020	4,375(5)	148,181
	3/1/2011	—	19,000(6)	\$53.76	2/28/2021	—	—
	3/1/2011	—	—	—	2/28/2021	3,285(6)	111,263
Angelo P. Lopresti	4/18/2006	6,667	—	\$ 5.37	4/18/2016	—	—
	5/9/2008	—	20,000(3)	\$19.69	5/8/2018	—	—
	2/26/2009	10,625	—	\$ 8.26	2/25/2019	—	—
	2/26/2009	5,000	15,000(4)	\$ 8.26	2/25/2019	—	—
	2/26/2010	—	26,250(5)	\$15.82	2/25/2020	—	—
	2/26/2010	—	—	—	2/25/2020	4,375(5)	148,181
	3/1/2011	—	19,000(6)	\$53.76	2/28/2021	—	—
	3/1/2011	—	—	—	2/28/2021	3,285(6)	111,263
Alexander Ovtchinnikov, Ph.D. . .	5/9/2008	—	22,000(3)	\$19.69	5/8/2018	—	—
	2/26/2009	2,062	16,500(4)	\$ 8.26	2/25/2019	—	—
	2/26/2010	—	26,250(5)	\$15.82	2/25/2020	—	—
	2/26/2010	—	—	—	2/25/2020	4,375(5)	148,181
	3/1/2011	—	19,000(6)	\$53.76	2/28/2021	—	—
	3/1/2011	—	—	—	2/28/2021	3,285(6)	111,263

- (1) Represents the fair market value of a share of our common stock on the grant date.
- (2) Based upon the closing price of our common stock on December 31, 2011.
- (3) Assuming the continued service of the Named Executive Officer, 1/12th of the options vest in monthly installments commencing on May 9, 2012.
- (4) Assuming the continued service of the Named Executive Officer, 1/32nd of the options vest in monthly installments commencing on May 1, 2011.
- (5) Assuming the continued service of the Named Executive Officer, the options and restricted stock units vest in four equal quarterly installments commencing on March 31, 2014.
- (6) Assuming the continued service of the Named Executive Officer, the options and restricted stock units vest in four equal quarterly installments commencing on March 31, 2015.

Equity Compensation Plans

In February 2006, our Board of Directors adopted our 2006 Incentive Compensation Plan, which was approved by our stockholders as a successor plan to the 2000 Incentive Compensation Plan (under which awards may no longer be made). The 2006 Plan was amended in May 2011 upon approval by our stockholders at the 2011 annual stockholders' meeting. The maximum number of shares that may be awarded under the 2006 Plan is 10,084,273. Other than the number of shares reserved, the plans are substantially similar. Each plan terminates ten years after its adoption, unless terminated earlier by our Board.

The 2000 Plan and the 2006 Plan, as amended, are administered by the Compensation Committee. The Compensation Committee approves awards under the Plans, including the exercise price and other terms of each award, subject to the provisions of the Plans and has general authority to administer the Plans.

Each Plan authorizes the grant of options to purchase common stock intended to qualify as incentive stock options, as defined in Section 422 of the Internal Revenue Code, and nonstatutory stock options. The Plans also provide for awards of restricted stock, stock units, performance shares, performance units, stock appreciation rights and cash awards.

Our officers, directors, employees, consultants and advisors are eligible to receive awards under the Plans. No participant may receive awards for over 1,666,667 shares of common stock in any calendar year under the 2006 Plan, as amended.

In June 2006, our Board adopted our Non-Employee Directors Stock Plan (the Non-Employee Director Plan) which was approved by our stockholders. Only our non-employee directors are eligible to receive awards under the Non-Employee Director Plan. A total of 486,666 shares are reserved for issuance under the Non-Employee Director Plan. The Non-Employee Director Plan terminates ten years after its adoption, unless terminated earlier by our Board. The Non-Employee Director Plan authorizes the grant of options to purchase common stock that are not intended to qualify as incentive stock options, as defined in Section 422 of the Code. The Plan also provides for awards of stock appreciation rights, stock units, stock awards and cash awards.

Awards granted or paid under the 2006 Plan, as amended, will be subject to any compensation recovery policy established by the Company and amended from time to time. The 2006 Plan, as amended, expressly forbids the repricing or cancellation of underwater stock options.

The 2000 Plan provides that, upon a change in control of our company, the Compensation Committee may, in its sole discretion, accelerate the time for exercise or payout of all outstanding awards, cancel the award after notice to the holder of an outstanding award as long as the holder receives a payment equal to the difference between the fair market value of the award on the date of the change in control and the exercise price per share, if any, of such award, or provide that all outstanding awards will be either assumed by the entity that acquires control or substituted for similar awards by such entity. The 2006 Plan, as amended, provides for accelerated vesting of an award only after a change in control and employment termination (a so-called "double-trigger"), rather than immediately upon a change in control ("single-trigger").

In addition, in the event that the 2000 Plan or 2006 Plan, as amended, is terminated due to a merger or acquisition of the Company, the Compensation Committee has the right, but not the obligation, to direct the repurchase of outstanding stock options at a price equal to the fair market value of the shares subject to the repurchased options less the exercise price per share.

The Non-Employee Director Plan provides that awards become fully vested and exercisable upon a change in control. The Plan defines a "change in control" as the occurrence of any of the following:

- any person becomes a beneficial owner of our securities representing at least 50% of the combined voting power of our then-outstanding securities;
- persons who, at the beginning of any period of two consecutive years, were members of the Board of Directors cease to constitute a majority of the Board of Directors unless the election or nomination for election by the stockholders of each new director during that two-year period is approved by at least two-thirds of the incumbent directors then still in office;

- the occurrence of a merger, sale of all or substantially all of our assets, cash tender or exchange offer, contested election or other business combination under circumstances in which our stockholders immediately prior to such merger or other such transaction do not, after such transaction, own shares representing at least a majority of our voting power or the surviving or resulting corporation, as the case may be; or
- our stockholders approve a complete liquidation.

Employee Stock Purchase Plan

We maintain an employee stock purchase plan, which is intended to qualify as an “employee stock purchase plan” under Section 423 of the Internal Revenue Code. Each of our U.S. employees and a limited group of our German employees who customarily work more than 20 hours per week and more than five months in any calendar year is eligible to participate in this plan after completing six months of service. To participate in the plan, an employee may designate prior to the commencement of a six-month offering period the amount of payroll deductions to be made from his or her paycheck for the purchase of shares of our common stock under the plan, which amount may not exceed 10% of his compensation. On each purchase date, shares of our stock are purchased automatically for each participant with the amounts withheld from his or her payroll deductions at a price equal to 85% of the lesser of the fair market value of the shares on the purchase date or the fair market value of the shares on the first day of the offering period. An employee may not participate in an offering period if, immediately after the purchase of shares, the employee would own shares or hold options to purchase shares of our stock possessing 5% or more of the total combined voting power or value of all classes of our stock. The employee stock purchase plan includes a “Non-Code Section 423 Component” for the employees of subsidiaries outside the United States.

Option Exercises and Stock Vested Table

The following table provides information regarding stock option exercises by our Named Executive Officers in 2011:

Name	Option Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise\$(1)
Valentin P. Gapontsev, Ph.D.	—	—
Timothy P.V. Mammen	13,334	651,311
Eugene Scherbakov, Ph.D.	—	—
Angelo P. Lopresti	60,000	3,433,614
Alexander Ovtchinnikov, Ph.D.	23,438	1,523,448

(1) The value realized is based on the difference between the reported closing sale price on the date of exercise, and the exercise price.

Pension Benefits

None of our Named Executive Officers participate in or have account balances in qualified or nonqualified defined benefit pension plans sponsored by us. The Compensation Committee may elect to adopt qualified or nonqualified defined benefit pension plans in the future if the Compensation Committee determines that doing so is in our best interests.

Nonqualified Deferred Compensation

None of our Named Executive Officers participates in or has an account balance in any nonqualified defined contribution plans or other nonqualified deferred compensation plans maintained by us.

Potential Payments Upon Termination or Change in Control

If the Company terminates the employment of any of the Named Executive Officers without cause (as defined in the respective employment agreements) or any of the Named Executive Officers terminates his employment for good reason (as defined in the respective employment agreements), then the officer would receive:

- (a) continuation of salary for twelve months, except in the case of Dr. Gapontsev, who would receive continuation of salary for twenty-four months;

- (b) a portion of the annual bonus that the executive would have received had he remained employed through the end of the applicable bonus period (such portion based upon the percentage of the year that he was employed by the Company);

- (c) continuation of medical and dental benefits for twelve months;

- (d) accelerated vesting of equity compensation awards granted after the date of the agreement that otherwise would have vested within twelve months of termination of employment; and

- (e) full accelerated vesting of equity compensation awards granted after the date of the agreement if such termination occurs within twenty-four months following a change in control (as defined in the 2006 Plan).

If the employment period of any of the Named Executive Officers terminates and the Company does not offer such officer continued employment in the same or a substantially similar position and at a compensation level that is the same or substantially similar to the compensation level in effect at the end of the employment period, then such officer would receive the compensation and benefits described in (a) and (b) above.

An officer would also receive the payments described in (b) above if his employment is terminated by death or disability.

Under the employment agreements, the Company is not obligated to make any cash payments if employment is terminated by the Company for cause or by the executive not for good reason. Payments to the officers are conditioned upon the execution of a form release of claims by the Named Executive Officer in favor of the Company.

A change in control of the Company does not affect the amount of any cash severance payments payable under the employment agreements. Upon a change in control, the officers' employment periods under the agreements would automatically be extended to the second anniversary of the change in control. The 2006 Plan, as amended, provides for accelerated vesting of an award if a change in control occurs followed within two years by a termination of employment without cause or for good reason.

The following table provides information regarding compensation and benefits that would be payable to our Named Executive Officers as of December 31, 2011 upon a termination of employment or change in control:

Name	Benefit	Termination	Termination
		Without Cause or For Good Reason (\$)	Without Cause or For Good Reason Following a Change in Control (\$)(1)
Valentin P. Gapontsev, Ph.D.	Salary and Benefits Continuation	845,033	845,033
	Equity acceleration	—	—
	Total	845,033	845,033
Timothy P.V. Mammen	Salary and Benefits Continuation	337,429	337,429
	Equity acceleration	416,404	1,582,000
	Total	753,833	1,919,429
Eugene Scherbakov, Ph.D.	Salary and Benefits Continuation	380,685	380,685
	Equity acceleration	366,435	1,467,782
	Total	747,120	1,848,467
Angelo P. Lopresti	Salary and Benefits Continuation	307,929	307,929
	Equity acceleration	333,123	1,401,007
	Total	641,052	1,708,936
Alexander Ovtchinnikov, Ph.D.	Salary and Benefits Continuation	287,963	287,963
	Equity acceleration	366,432	1,467,782
	Total	654,395	1,755,745

(1) Change in control value is calculated using the full value of restricted stock units based upon the closing sale price of our common stock on December 31, 2011 and the aggregate difference between the exercise prices of stock options and the closing price of our common stock on December 31, 2011.

Compensation Risk Assessment Review

Management conducts an annual risk assessment of the Company's compensation policies and practices for all employees, including non-executive officers, and reports its findings to the Compensation Committee. In 2011, management concluded that the Company's compensation policies and practices are balanced and do not motivate imprudent risk taking. The Company's compensation programs reward consistent, long-term performance by heavily weighting compensation to long-term incentives that reward sustainable financial and operating performance and imposing lengthy vesting schedules. The Company's annual incentive compensation is based on performance measures that promote progress towards longer-term goals and is capped at sustainable levels. The Company believes that it has appropriate procedures in place to mitigate material risks, if any, from its compensation practices and policies.

OTHER MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our directors and executive officers, and persons who beneficially own more than 10% of a registered class of our equity securities to file reports of ownership of, and transactions in, our securities with the SEC. These directors, executive officers and 10% stockholders are also required to furnish us with copies of all Section 16(a) forms that they file. Based solely on a review of the copies of such forms received by us, and on written representations from certain reporting persons, we believe that during 2011 our directors, executive officers and 10% stockholders complied with all applicable Section 16(a) filing requirements, except that Mr. Samartsev reported late on Form 4 his indirect acquisition of shares owned by a family member. The Form 4 was filed on May 10, 2011.

2013 Annual Meeting and Nominations

Stockholders may present proposals for action at a future meeting and nominations for director if they comply with applicable SEC rules and our by-laws. If you would like us to consider including a proposal in our proxy statement or nominating a director next year, it must be received by our Secretary, at IPG Photonics Corporation, 50 Old Webster Road, Oxford, Massachusetts 01540, on or before December 11, 2012. If you would like to present a proposal at the 2013 annual meeting, but not to have such proposal included in our proxy statement relating to that meeting, such proposal must be received by our Secretary not earlier than February 1, 2013 and not later than March 3, 2013. Our by-laws contain additional specific requirements regarding a stockholder's ability to nominate a director or to submit a proposal for consideration at an upcoming meeting. Our by-laws require that the notice to the Company include (i) information relating to the name, age and experience of the nominee and such other information concerning such nominee as would be required under the then-current rules of the SEC to be included in a proxy statement soliciting proxies for the election of the nominee, (ii) the nominee's written consent to being named in the proxy statement and serving as a director, if elected and (iii) the name and address of the record holder and beneficial holder of the shares, the number of shares held of record or beneficially owned, and representations as described in our by-laws. If the Nominating and Corporate Governance Committee or the Board determines that any nomination made by a stockholder was not made in accordance with the Company's procedures, the rules and regulations of the SEC or other applicable laws or regulations, such nomination will be void. If you would like a copy of the requirements contained in our by-laws, please contact our Secretary.

No Incorporation by Reference

In our filings with the SEC, information is sometimes "incorporated by reference." This means that we are referring you to information that has previously been filed with the SEC and the information should be considered as part of the particular filing. As provided under SEC regulations, the "Audit Committee Report" and the "Compensation Committee Report" contained in this proxy statement specifically are not incorporated by reference into any of our other filings with the SEC, are not to be deemed soliciting materials or subject to the liabilities of Section 18 of the Exchange Act. In addition, this proxy statement includes several website addresses. These website addresses are intended to provide inactive, textual references only. The information on these websites is not part of this proxy statement.

Notes

Notes

Corporate Information

EXECUTIVE OFFICERS AND DIRECTORS

Valentin P. Gapontsev, Ph.D.

Chief Executive Officer
Chairman of the Board

Eugene Scherbakov, Ph.D.

Managing Director of IPG Laser and Director

Igor Samartsev

Chief Technology Officer and Director

Timothy P.V. Mammen

Chief Financial Officer and Vice President

Angelo P. Lopresti

General Counsel, Secretary and Vice President

Alexander Ovtchinnikov, Ph.D.

Vice President, Components

William Shiner

Vice President, Industrial Markets

George H. BuAbbud, Ph.D.

Vice President, Telecommunications Products

Robert A. Blair (1) (2)

Director

Michael C. Child (2) (3)

Director

Michael Kampfe (1)

Director

Henry E. Gauthier (3)

Director

William S. Hurley (1) (3)

Director

William F. Krupke, Ph.D. (1) (2)

Director

(1) Compensation Committee

(2) Nominating and Corporate Governance Committee

(3) Audit Committee

GENERAL INFORMATION

CORPORATE OFFICE

IPG Photonics Corporation
50 Old Webster Road
Oxford, Massachusetts 01540
Tel: (508) 373-1100

<http://www.ipgphotonics.com>

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Deloitte & Touche LLP
200 Berkeley Street

TRANSFER AGENT

Computershare Investor Services
250 Royall Street
Canton, MA 02021
Tel: (800) 942-5909

STOCK SYMBOL

IPGP

INVESTOR RELATIONS

Corporate news releases, our Annual Report and Forms
10-K and 10-Q are available online at:
<http://investor.ipgphotonics.com>

For printed materials, please request at
<http://investor.ipgphotonics.com/investorkit.cfm>

ANNUAL MEETING

The Annual Meeting of Stockholders will be held at 10:00
a.m. ET on Tuesday, June 5, 2012 at
IPG Photonics Corporation
50 Old Webster Road
Oxford, Massachusetts

FORWARD-LOOKING STATEMENTS

This Annual Report contains forward-looking statements
that involve risks and uncertainties that could cause results
to differ materially from those projected. Please refer to the
introductory paragraphs which precede Item 1 and "Risk
Factors" in Item 1A of the Annual Report on Form 10-K for a
discussion of these risks and uncertainties.



IPG Photonics Corporation
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